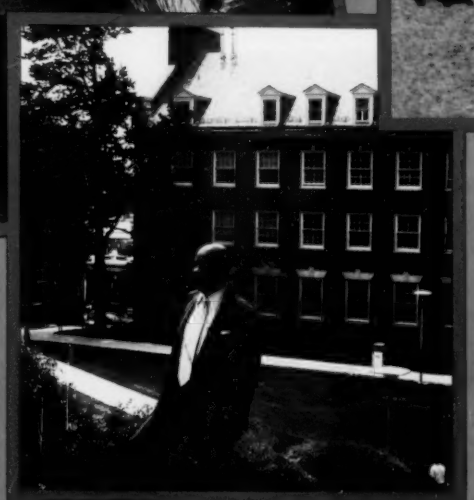
NAVY CIVIL ENGINEER

Summer 1982

The not-so static life of the CEC OFFICER

Exotic Places

Exciting Action



Interesting People

Eighteen new grads assigned worldwide

Eighteen new officers joined the ranks of the U.S. Navy's Civil Engineer Corps on March 5, 1982 upon their graduation from the Naval School, Civil Engineer Corps Officers, Port Hueneme, Calif., and have accepted assignments all over the world.

The class, Number 162, completed eight weeks of specialized training pertinent to the Navy's needs for shore installation engineering, public works management, and Seabee operations.

Three graduated with honors.

LT Dennis M. Foster	Outstanding Graduate
ENS Lee W. Thomas, Jr.	With Distinction
ENS Christopher N. Wszolek	With Distinction

LT Foster's photograph is indicated by (*). Students graduating with distinction are indicated by (•) and those entering Seabee duty by (†).

*LT Dennis M. Foster
BSME/Miss. U.
to Gulfport, Miss.

LTJG Kevin R. Barre
BSEE/Fla. U.
to Miramar, Calif.

LTJG Nancy A. Baumgartner
M. Arch./L.A. Tech. Univ.
to Guantanamo Bay, Cuba

LTJG Scott P. Calisti
M. Arch./Mgmt./Kent St.
to Naples, Italy

ENS Thomas M. Cunningham
BSME/Wisconsin U.
to Rota, Spain

ENS Daniel F. Geldermann
BSCE/Marquette U.
to Norfolk, Va.

LTJG Brian K. Harris
BME/Auburn U.
to Charleston, S.C.

LT Robert W. Henderson
BSEE/Missouri U.
to Cecil Field, Fla.

ENS Ronald P. Hovell
BS Sys. Eng./USNA
to Guantanamo Bay, Cuba

LTJG Laurence F. Lindsey
MSCE/Ga. Inst. of Tech.
to Subic Bay, R.P.

ENS Joseph D. Ludovici
BSE/U. of Central Fla.
to Bermuda

LTJG Curtis J. Lypek
MS Const. Mgmt./Marquette U.
to Guam, M.I.

ENS Terrence M. Mahoney
BSCE/S.E. Mass.
to New Orleans, La.

LTJG Deborah J. Marcotte
MSCE/Lehigh U.
to Brunswick, Me.

ENS Domenick Marrara III
BSME/W. Va. U.
to Cherry Point, N.C.

LTJG Joseph E. Pollard
BSEE/So.U. & A&M Coll.
to Camp Pendleton, Calif.

•†ENS Lee W. Thomas, Jr.
BS Chem. Eng./Penn State
to Port Hueneme, Calif.

•ENS Christopher N. Wszolek
BSCE/Maine U.
to Camp Pendleton, Calif.

THE COVER

The purpose of this issue's cover design was to suggest that there is more to the Civil Engineer Corps than musters, slide rules and earth moving equipment. Engineers are people too; interesting, ambitious, vital and adventurous. The stories on pages 2, 24 and 31 will bear this out.

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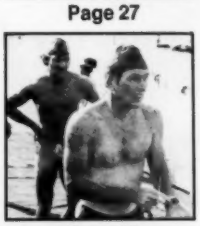
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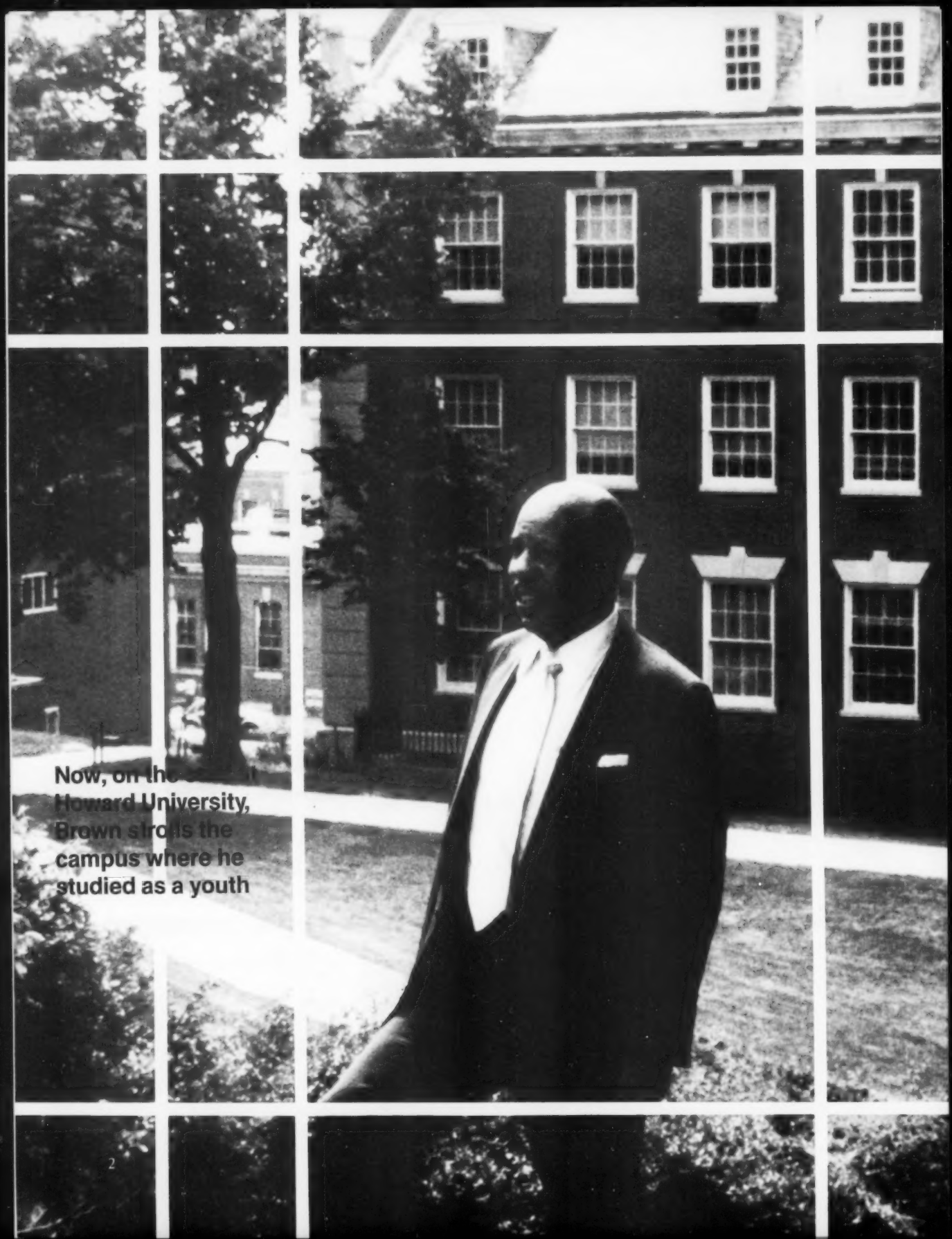


Now, on the campus of Howard University, Brown strolls the campus where he studied as a youth

WESLEY BROWN

Inspired by a ship, he became the first Black to graduate from Annapolis

By
JO3 COLLEEN C. RIDDICK, USN
Assistant Editor
Navy Recruiter

•Arlington, Va.

At the age of eight, Wesley Anthony Brown pinned a photo of the USS Lexington (CV-2) on his bedroom wall. The photo joined others depicting youthful aspirations. As time went on, the other photos were replaced, but the Lexington remained in its original place. It was a constant reminder of his avid desire to join the United States Navy.

Brown did more than join the Navy. In 1949, he became the first Black to be graduated from the U.S. Naval Academy.

Born April 3, 1927, in Baltimore, Maryland, Brown grew up in Washington, D.C. He attended Dunbar High School, one of the city's three all Black high schools.

"I had to work to keep myself in school and found a job in the Navy Department," states Wesley Brown. It was during this employment that he began having thoughts about attending the Naval Academy. "I made acquaintances with many of the naval officers in the department which heightened my ambition to pursue a career as an officer."

Brown learned from the officers that the Navy was primarily an engineering institution and arranged his high school studies to concentrate on math and science.

Perseverance is a prerequisite in surviving the ups and downs encountered when pursuing a goal. Brown would need an abundance of perserverance because he would encounter more than his share of obstacles in his propelling desire to enter the Academy.

Preparing Smartly

Upon graduating from high school, Brown decided to brush up on his academic skills at a prep school before applying for the Academy. "To my dismay, I was not eligible to attend most prep schools because of my race. My alternative was to enter Cornell Engineering School for one year. However, as much as I hoarded my money, tuition was beyond my financial resources," he adds.

Brown finally resorted to enlisting in the United States Army Reserve. The Army sent him to Howard University in Washington, D.C., for one year to specialize in engineering. Now his ambition to become an engineer became more of a reality, but the prospects of a Navy officer career appeared to be diminishing.

Mail Call

Then, Congressman Adam Clay-

ton Powell of New York wrote a letter to Lieutenant Colonel H.O. Atwood, Department Head of Military Sciences for the three all Black high schools in Washington, requesting him to recommend his top student for appointment into the U.S. Naval Academy.

Although Brown had graduated two years ago from high school, he was remembered by Atwood. Brown had been a colonel for the JROTC Cadets while a high school student. Atwood recommended Brown. Powell accepted the recommendation and initiated the paperwork.

At Odds With History

Brown was appointed to enter the Naval Academy in the spring of 1945. His appointment brought an eleven-year yearning closer to reality. Along with it, though, came varied reactions which ranged from enthusiasm to abject pessimism. Most friends gave enthusiastic congratulations. Privately, many did not think he would actually enter the Academy, much less graduate. The Navy was sure to find something wrong.

It was after the Civil War that the first Black was admitted to the Academy. His attendance was fiercely debated by midshipmen, faculty and the interested public. One historian described the essential issue as public, and the Navy doubted that the young Black, if and when commissioned, could secure the necessary recognition from other officers as well as maintain discipline and enforce respect from the crew. Most of the faculty had fought for emancipation on the side of the north, but all were surprised when James Conyers reported aboard. Conyers bore the hazing stoically, but resigned in 1873 — one year after admission.

As he stood with copies of the Powell nomination in hand, Brown was not aware of the history of James Conyers. He was not aware that four other Blacks gained admission since Conyers but failed to graduate. He knew only that he wanted a commission as a Navy officer. He wanted the Academy.

A Sequence of Doubts

Brown was given an unofficial preliminary physical examination at Powell's request. Sure enough — bad news. The dental officer noted a slight case of malocclusion — the upper front teeth did not quite touch the lower front. Brown was disqualified. Telephones hummed for several days between Washington and Annapolis about the seriousness of malocclusion. Finally, the Navy decided Brown's case was within acceptable limits.

Red Tape

Swearing in time at the Academy — Brown was pulled aside by a commander and asked if he had his discharge papers from the Army. "I do not, sir," responded Brown. He was told he could not be sworn in until officially discharged from the Army. Off he went to the Pentagon. After frantic inquiries and hours of running around, he was referred to Fort George Meade in Maryland. Brown knew he had problems.

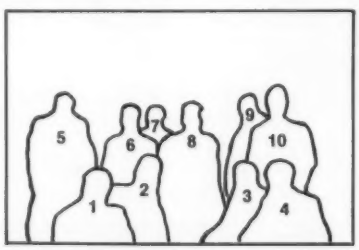
The Army officer said it would take two months before he could be discharged. "Two months," exclaimed a surprised and chagrined Brown. The officer said he would compromise and make him a special case. He would allow him to be discharged in three weeks. No good, though . . . it would not help because plebe year begins in the summer. Brown was already conspicuous; coming late would only make him more noticeable.

After more phone calls, the Army decided that Brown would be discharged after officially being sworn into the Navy. But, the Navy was adamant. Brown would not be allowed to swear in until he was honorably discharged from the Army. Finally the two services compromised; the Army mailed Brown's discharge papers to the Commandant of Midshipmen at the Academy while the Navy swore him in.

Returning to Annapolis, thankful that the red tape ordeal was over, Brown felt relieved that trouble was out of sight. He would be entering the Naval Academy in June. "It was 2:00 a.m. and I was crossing a street on the Academy campus. Military police stopped and arrested me for jaywalking. Early the next morning, nervous and shaking, I stood in front of the officer and explained what had happened. The officer tore up the charges but sternly informed me that I would not get away so easily if I were caught jaywalking in a sailor's uniform again," remembers Brown.

Indoctrination

Midshipman life began for Brown, and plebe year was the toughest. His lack of confidence thwarted his adjustment to the curriculum as well as the do's and dont's of a freshman. He was known as a "superclutcher." "I would lose my composure when quiz time came and fail the easiest quizzes." Receiv-



Wesley Brown and the Golden Thirteen take a moment to pose on the forecastle of the USS Kidd. They are identified as (1) Justice William S. White; (2) Dalton L. Baugh; (3) George C. Cooper; (4) Dr. Samuel E. Barnes; (5) Jessie W. Arbor; (6) James Hair; (7) John W. Reagan; (8) Graham E. Martin; (9) Wesley A. Brown; and (10) Frank E. Sublett. These Black pioneers enjoyed a three-day reunion early this year.

ing numerous demerits for violation of freshman regulations, Brown was ranked at the bottom of his class during the first six months.

"I realized that I had to improve my grades as well as my conduct before the end of freshman year, so I sat down and analyzed my problems," says Brown. He discovered that his inadequacy was not due to being Black or excessive hazing by upperclassmen, nor were the instructors making it more difficult.

"It was my own fear or failure," he admits. "I rid myself of the superclutcher syndrome by learning to relax during quiz time and maintaining awareness of regulations. The thought that my classmates had an advantage over me disappeared." Brown went on to graduate in the upper half of his class, earning a bachelor's degree in science.

CEC Career

Upon graduating, Brown chose to specialize in the Civil Engineer Corps. He was selected to attend Rensselaer Polytechnic Institute, a leader in postgraduate engineering disciplines, where he earned a bachelor of civil engineering.

He was attached to the Atlantic Fleet Seabees. Their task was to help countries during emergencies such as volcanic erruptions, earthquakes and water shortages. They would repair roads, help build living quarters and construct dams.

Brown became a project officer for Naval Mobile Construction Battalion Five (NMCB-5) during the construction of Cubi Point Naval Base in the Philippines. It would become the most complex project he supervised. NMCB-5 worked 24 hours a day, seven days a week, in rain or sweltering heat. Due to the outbreak of the Korean War, the project became of dire importance and had to be completed quickly.

The aircraft carrier pier, one component of the project, would be the only one between there and Pearl Harbor, Hawaii. With this pressure, Brown felt that it was the most professionally challenging job he would encounter. "I knew I was being watched because of the need for this particular project. It underscored the importance of my knowledge and ability as a naval officer."

They laid roads, built water systems and constructed numerous base facilities. Deployed for one year without their families, it was a lonely period for most of the men. There were approximately 1,800 Seabees attached to the battalion, and they worked long and hard.

Brown says, "Working with the Seabees was a challenging job. Working for and with such capable, professional and reliable individuals who were always willing to go that extra mile to get the job done enabled me to grow and maintain a positive attitude in all my endeavors as a naval officer and now as a civilian."

His determination to show his capability as a naval officer, and not just a Black man breaking a "color barrier," gained him the respect of subordinates and measured him shoulder-to-shoulder with his peers. He has received numerous awards such as the Secretary of the Navy Commendation for Achievement Medal for his outstanding performance as a CEC officer during his assignment to the Agency for International Development, Department of State.

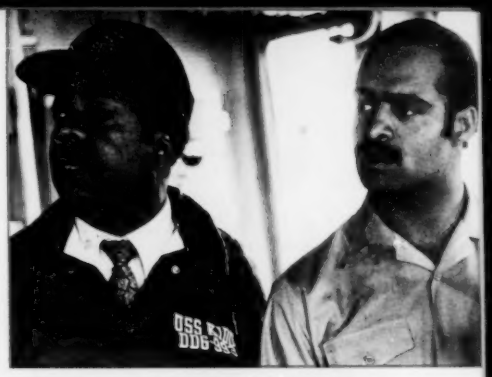
Retirement

For 20 years Brown set an example for many Blacks through his pride and professionalism as a commissioned officer. Retired in 1969 as a lieutenant commander, he has continued his engineering career. He has worked for the New York State University Construction Fund as Stoneybrook Campus Construction Projects Manager and for the New York State Dormitory Authority as Nassau Community College Construction Projects Manager. He is now employed at the Howard University Campus in Washington, D.C. as the Master Facilities Planner. His responsibilities entail the overall support requirements of the University, physical facilities and academic needs.

All his civilian jobs have required the knowlege he obtained during his military career. "The Navy trained me well for my civilian career. There are no regrets in taking that step toward my dreams," states Brown.

USS Kidd

During a three-day cruise aboard the USS Kidd (DDG-993), one of

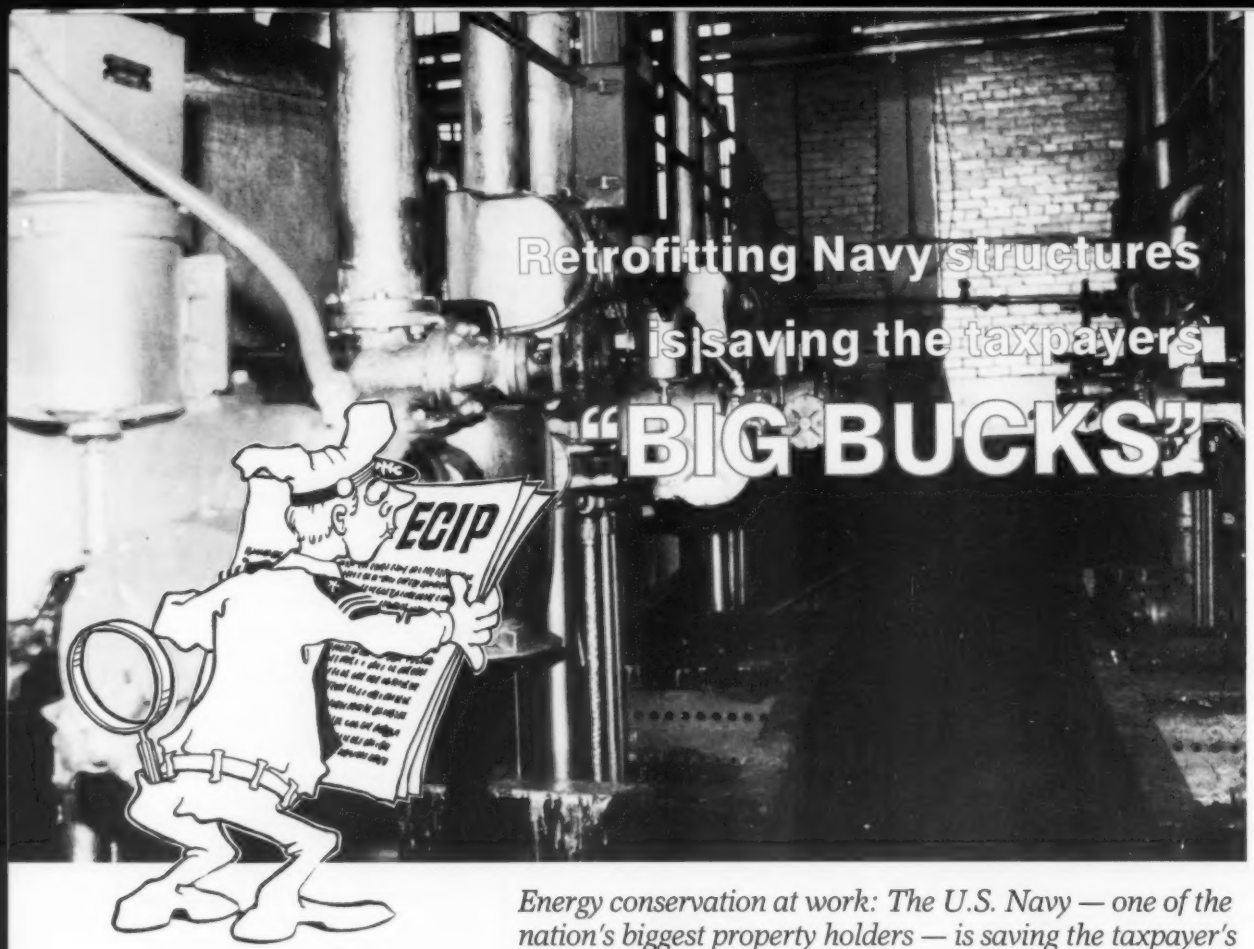


While aboard the USS Kidd recently, Brown met LT (jg) William B. Martin, Kidd's First Lieutenant. Martin, the first Black to earn a degree in naval architecture, graduated from the Academy in 1979.

the Navy's newest destroyers, Brown and nine surviving members of the Golden Thirteen gathered to observe first-hand the Navy's technological advancements over the past few decades. The Golden Thirteen were the nation's first all-Black company to graduate from Officer Candidate School in March 1944.

Brown comments, "The capability of the Navy's highly sophisticated equipment is awesome. Its operation requires intelligent men and women. They must be well educated in all aspects, especially in math and science. They must also be mature enough to meet the challenges they will encounter in handling the Navy's technologically advanced equipment.

"The opportunities available to men and women in today's Navy are infinite. If they have the motivation to pursue their goals, then the Navy could be for them," adds Brown. While onboard the Kidd, Brown met Lieutenant (junior grade) William B. Martin, the Ship's first lieutenant. Martin graduated from the Academy in 1979, 30 years after Brown, but he too was a first; Martin was the first Black to earn a bachelor's degree in naval architecture from the Academy. Brown believes Martin is testimony that opportunities have expanded greatly in the Navy. "It made me feel good talking to an intelligent and dedicated young officer. He knows where he's going, and it makes my struggles seem so much more meaningful," states Brown. "The opportunities available today were not on the horizon for the Golden Thirteen or me," concludes Mr. Wesley Brown. □



Retrofitting Navy structures is saving the taxpayers "BIG BUCKS"

Energy conservation at work: The U.S. Navy — one of the nation's biggest property holders — is saving the taxpayer's money by modifying its structures

By W. R. MITCHUM, CEC, USN
E.I.T., La.
Director, Energy & Utilities Division
Naval Facilities Engineering Command

• Alexandria, Va.

INTRODUCTION

With more than 100,000 individual buildings totaling five hundred million square feet at 380 major installations worldwide, the Department of the Navy is one of the Nation's largest property holders. The annual bill for energy to heat, cool, and operate this vast inventory came to over $700 million in Fiscal Year 1981.

As early as the 1960's the Navy had a program for utilities conservation. With the increased concerns over energy use and availability that resulted from the Arab Oil Embargo in 1973, the Navy greatly renewed its conservation efforts. Under Department of Defense guidance a Navy program for retrofitting of existing buildings to save energy was created.

This "Energy Conservation Investment Program" (ECIP) has become the centerpiece of the Navy's extensive facilities energy conservation efforts.

Criteria for ECIP include:

- Retrofit of existing facilities.
- Cost effectiveness, i.e., savings-to-investment ratio (SIR) greater than one based on life-cycle cost analysis.
- Energy effectiveness as imposed by selection of projects for funding on the basis of energy-saved to investment-cost (E/C) ratios.

Projects executed under ECIP encompass a wide range of energy saving retrofits. Types of modifications being implemented include:

- Steam and condensate system modifications
- Boiler Plant Modifications
- Lighting System Conversions
- Electrical Energy Systems
- Heating, Ventilating and Air Conditioning (HVAC)
- Energy Recovery Systems
- Weatherization
- Energy Monitoring and Control Systems (EMCS)

PROGRAM FUNDING

Funding of the Navy ECIP began in Fiscal Year 1976 with the execution of 42 projects at an expenditure of $28.5 million. The program has continued to increase each fiscal year. Actual funding has been:

Fiscal Year	Projects	$ Million
76	42	$ 28.5
77	73	42.1
78	47	21.2
79	51	33.2
80	41	32.1
81	44	39.9
82	33	50.0
Totals	331	$247.0 M

For future years ECIP funding plans are based on a continuation of the general level of program support

experienced in the past. Funding for FY's 83 and 84 has been reduced from planned levels due to budget pressures. Forecast ECIP funding under the Five-Year-Defense Plan (FYDP) includes:

FY83	$ 31.3
FY84	35.2
FY85	52.1
FY86	50.3
FY87	54.1
Total	$223.0 M

Total 12-year funding $247.0 M + $233.0 M = $470.0 M

PROGRAM RESULTS

In order to measure the effectiveness of ECIP, an audit is performed every year to validate each accomplished project. The results of these audits indicate that the overall program has been very successful in terms of achieving its intended energy savings and has exceeded expectations for dollar savings. For example, the audit of FY80 projects showed that the projects constructed would return 121% of the predicted energy savings, and would provide a simple payback of 3.8 years vice the 6.7 years predicted.

The investment of $197M in FY's 76 through 81 has been audited at an annual savings of $60M giving an overall program payback to date of 3.3 years and total cumulative energy savings equivalent to 311 million gallons of oil. These energy savings are equivalent to 5.7% of Navy shore energy use during FY76 through FY81.

SUCCESSFUL PROJECTS

Within the general overall success of ECIP there are specific projects which stand out as examples of the great potential for energy saving through building retrofits. These projects, called ECIP Winners, are best identified through their outstanding energy savings to investment cost or E/C ratios. As previously mentioned, the E/C ratio is the criteria used to rank and select projects for funding. For convenience the E/C ratio is expressed as MBTU saved per thousand dollars of investment. This yields a handy two digit number. The Navy's experience with average E/C ratios for each program year is reflected below:

ECIP Winners have been encountered in most of the categories of work but certain categories appear to have a higher incidence of truly outstanding projects. For example, the category of lighting conversions has produced a number of highly rewarding projects:

- Investment of $1,655,000 to modernize lighting in a number of barracks and dining facilities at Marine Corps Base Camp Pendleton, CA produced an E/C ratio of 202. Almost 22,000 incandescent light fixtures were replaced with fluorescent and mercury vapor fixtures. Annual electricity savings is $830,000 and over $56,000 per year is saved in lamp replacement costs.

Another highly successful ECIP category provides for installation of heat recovery devices.

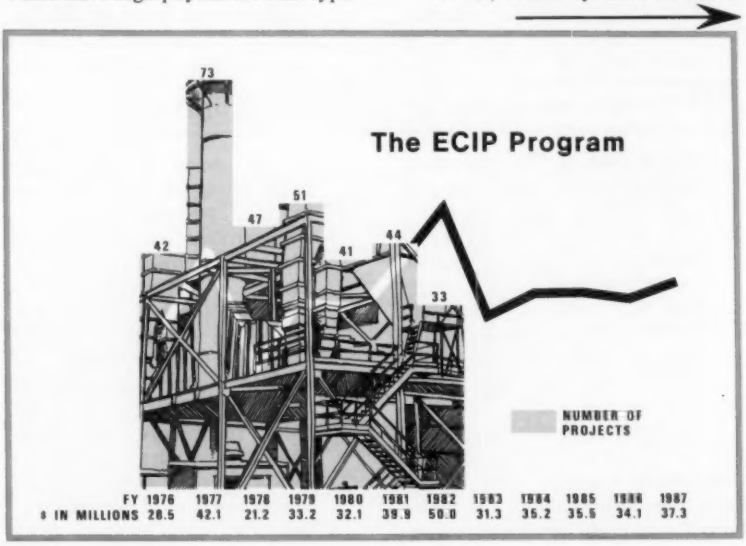
- A 9% reduction of annual fuel costs was achieved by recovering heat from 620° F exhaust flue gases with economizers installed on two boiler exhaust stacks at the Naval Ship Research and Development Laboratory, Annapolis, Md. The recovered heat is used to preheat feedwater and for limited space heating applications. This $146,000 project has an E/C ratio of 81 and saves $103,000 per year in fuel oil costs.

Because of the wide range of ages and types of construction of Navy buildings, there are often opportunities for very basic energy retrofits which have high paybacks. This type of project often involves concepts as simple as insulation.

- The Marine Corps Logistics Base at Albany, Ga. provides warehousing and supply support of all Marine Corps units in the Atlantic and European area. Among their facilities are 10 extra large warehouses, 1024 by 200 feet each, totaling over 2,000,000 SF. Steam lines inside these warehouses were not insulated. By providing over 10 miles of 2" thick fiberglass insulation on the steam lines within the warehouses, an annual savings of $187,000 in heating cost was achieved. The project cost $252,000 and has an E/C ratio of 175.

Study of methods and systems used to provide steam for heating and process uses has led to some significant opportunities for energy savings. While the majority of Navy bases use a central generation and district heating concept, there are occasions where exceptions to this concept result in reduced energy use.

- At Naval Shipyard Philadelphia, Pa., a cluster of buildings at a remote location on base were heated by steam distributed from the central shipyard steam plant. The steam distribution line serving this area was old, deteriorated, and required replacement. Analysis indicated that installation of an independent 17,000 PPH package boiler, remotely sited to serve



ECIP aids national defense

this building cluster, was economical and resulted in lower energy use than replacement of the distribution line. The project cost $360,000; had an E/C ratio of 58; and saves $128,000 per year in fuel costs.

The control of building temperatures, especially during nonworking hours at night and on weekends, offers large opportunities for energy savings. Buildings designed and built prior to the 1970's often had no provisions for turn down of heating systems except manual devices which are often intentionally or unintentionally ignored. Projects that provide automatic regulating devices, i.e., night set-back temperature devices produce energy savings, often at high E/C ratios.

- A particularly successful control effort at the Navy Public Works Center, Great Lakes, Ill., involved the installation of thermostats, time clock controls, and automatic radiator valves in 56 buildings. Prior to completion of this project, there was no adequate control of heating systems at night and on weekends when the buildings were not occupied. An investment of $164,000 in building controls produced annual savings of $406,000 for a simple payback of seven months. The project E/C ratio was 685.
- Remotely-activated-master-steam valves were installed on 16 buildings at Naval Air Station Pensacola, Fla. The valves, installed under a $69,000 project, allowed steam supply to the heating systems in the 16 buildings to be shut off from the central heating plant at night and on weekends when the buildings were unoccupied. The project resulted in fuel savings of $151,000/year and had an E/C ratio of 360.

Navy bases generally have central heating plants and extensive steam distribution systems. This creates numerous opportunities for saving large amounts of energy where distribution systems can be improved.

- An unusual project at Navy Public Works Center, San Diego, Calif., involved the replacement of insulation on steam distribution piping and valves in manholes. Existing insulation in 145 manholes was deteriorated or missing. Insulation of all piping, valves, and expansion valves with premolded, removable, nonasbestos type insulation costs $487,000 and saves $230,000 each year. The project E/C ratio was 63. In addition to energy savings the project enhances safety and working conditions in the manholes. Removable insulation will allow for future maintenance without destruction of insulation.

Other than the specific categories of energy saving projects outlined so far, there occur many varied opportunities for other types of retrofits that produce significant energy savings. Several examples follow:

- Fire protection for ships at Naval Shipyard Long Beach, Calif., was provided by a 2200 gallon-per-minute (GPM) constant-speed saltwater pump. The pump has significantly more capacity than was needed to maintain the required fire protection system pressure. Addition of a 1000 GPM variable speed pump at a cost of $80,000 met the fire protection requirement while saving $54,000 in the cost of energy to operate the larger pump per year. The project E/C ratio was 136.
- Uncontrolled heat loss at Naval Weapons Support Center, Crane, Ind., through open industrial doors was causing major energy expense. Frequent use of the doors by trucks and forklifts made it impossible to keep the doors closed at all times. The energy saving solution was to install air curtains on six loading dock doors. The unheated curtain of air prevents heated air from escaping from the building while allowing free access by vehicles. The project for the six doors cost $196,000, had an E/C ratio of 215, and saves $195,000 in heating costs each year.

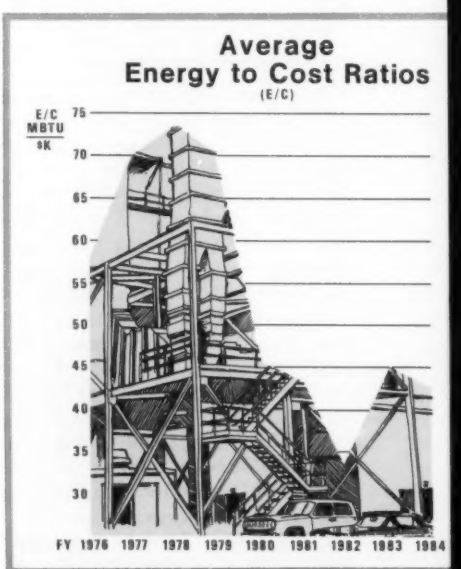
CONCLUSION

The opportunities for energy savings through facilities retrofits are many and varied. The U.S. Navy has experienced great success in identifying and implementing projects to achieve these savings. The opportunities with the greatest returns often involve the simpler techniques and technologies.

It is anticipated that with the capital funds available for energy retrofits, and the great unfulfilled potential for energy savings, within Navy shore bases, it will be possible to continue the ECIP program successes for many years. Increasing energy prices and new and more efficient retrofit techniques will produce a continuing stream of viable projects.

The energy savings achieved through the ECIP program contribute directly to the Navy's readiness by saving money and by displacing petroleum use. The energy, and particularly petroleum saved, goes to support the operation of the ships and the aircraft that carry out the Navy's mission of national defense. As stated by the Navy's energy awareness slogan for 1982 — "Energy is Readiness." □

Navy utility conservation started in 1960's



NEWS worth reviewing

HAWAIIAN TRADE-WINDS AND NAVY SAVE TAXPAYERS $$$

When Navy architects said: "We've got a better idea," they weren't kidding! Some ideas got off the drawing boards and into field recently at two groundbreaking ceremonies in Hawaii. The ceremonies were routine, but the stories behind the projects were not.

The "better idea" is a new design concept that will save the government and the taxpayers hundreds of thousands of dollars each year in construction, electricity and fuel costs.

The concept, conceived by architects working for the Pacific Division of the Naval Facilities Engineering Command is simple; use natural tradewinds and not air conditioning to cool military housing projects. Two enlisted personnel housing projects at Pearl Harbor will soon take advantage of the cooling tradewinds; one is a 16-story highrise located at the Naval Station, and the other is a four-story, 96-unit complex at the submarine base.

Art Weber, head of PacDiv's architectural branch, admits that the idea of cooling with tradewinds will not work for every building at every site. "It all depends on whether an area is exposed to the trades," he said. "But if it will work," he added, "why not take advantage of it."

In the 16-story highrise, omitting air conditioning has saved more than $911,000 in construction costs for 1982, and an estimated $50,000 annually in electricity costs. By eliminating air conditioning at the Submarine Base complex, construction savings have amounted to more than $177,000 and electricity savings for the first year should amount to nearly $24,000.

Both projects involved lengthy studies of the sites to learn about wind conditions, and the wind-tunnel tests of the proposed buildings. While these studies added about $20,000 to the cost of the design, Weber says it was money well-spent because it has saved nearly $1 million in construction costs alone.

GPO NOW HAS THESE DOCUMENTS

The Government Printing Office announced the availability of the following publications:

"Manned Submersibles" (008-042-00063-2) Cost: $20 ea.

"Admiral William Veazie Pratt, United States Navy, A Sailors Life" (008-046-00069-7) Cost: $9.50 ea.

"United States Naval History Sources in the United States" (008-046-00099-9) $6.50 ea.

All orders should be accompanied by payment in the form of check or money order made payable to the Superintendent of Documents. Address: Government Printing Office, Washington, D.C.

NAVFAC SWEEPS DOD DESIGN AWARDS

The Naval Facilities Engineering Command, the organization that builds and maintains the Navy's bases, came close to making a clean sweep of the 1981 DoD Design Awards for Military Construction, taking seven of the ten awards presented for project design.

Western Division projects led the pack, winning four awards including the prestigious Secretary of Defense Blue Seal Award for the most outstanding project in all categories.

WESTDIV won the Blue Seal Award for design of the Naval Regional Medical Center, Bremerton, Wash., and also received a Merit Award in Architecture for Energy Conservation.

Other winning projects designed by WESTDIV included the Unaccompanied Enlisted Personnel Housing Complex at Marine Corps Air Station, Tustin, Calif., and the Submarine Training Building at the Submarine Support Facility, San Diego, Calif.

The Pacific Division received a Merit Award for their design of the Chapel/Religious Education Center at Pearl Harbor, Hawaii, in the Welfare and Recreational Facilities category.

Northern Division won an Honorable Mention for their design, in the category of Architectural Facilities, for the Submarine Training Facility at the New London Submarine Base, Groton, Conn.

NAVFAC's Officer in Charge of Construction Trident received a Merit Award for their design of the Administration Building at the Submarine Base, Bangor, Wash.

The DoD Design Awards Program was established to promote excellence in architectural design and provides motivation and recognition for architects who design facilities for the military departments.

ALICIA ALINAYA GETS SEABEE SCHOLARSHIP

The Kathleen Crisp Scholarship, a Seabee Memorial Scholarship, was presented to Alicia R. Alinaya of Oxnard, Calif., in March by RADM T. Maddock, CEC, USNR-R at MCAS El Toro. Alicia attends the University of Calif. at Riverside and is majoring in computer engineering.

Alicia Alinaya

The scholarship fund was created during the establishment of the Seabee Memorial in Washington, D.C., and is awarded to the sons and daughters of officers and enlisted personnel who have served or who are now serving with the CEC. Alicia's father, Micanor — also of Oxnard, served in the U.S. Navy from 1954 to 1974.

Alicia worked as an engineering trainee at NAS Point Mugu, Calif., during the summer of 1981. There she was introduced to the field of engineering and computers while associating with engineers in those disciplines. Alicia's knowledge of sign language also gives her the chance to tutor math and English at the California School for the Deaf.

Alicia, who is one of 40 recipients of this scholarship, plans to use her scholoarship money to help pay for tuition and books.

All tied up with "Power Politics"?

Navy salvo rakes city park idea
Navy hospital foes throw pitch to council
Navy May Offer 'Sweeter Pot' For Hospital S
Deadlock Hit In Navy Silver Strand Lease
Protesters Seized t Groundbreaking or Navy Hospital

You don't have to be a professional politician to cope

By CDR BRIAN O'CONNELL, CEC USN
P.E., Wis.
OICC TRIDENT
• Alexandria, VA.

Most Civil Engineer Corps (CEC) officers, upon entering the Navy, bring with them an excellent foundation in the various technical fields of engineering or architecture. Thus they are able after several years of experience to cope with most aspects of facilities engineering for the Navy. It has become ever more noticeable lately that there is one other important factor that may influence the facilities business for which few of us have adequate education or experience. The broadest catch-all label used to describe that influence is politics.

You will find little reference to politics in the classical education of engineering and architecture except perhaps at the graduate level, and even then it does not usually get addressed in terms of how the Navy and Marine Corps conduct its facilities business.

The information contained here is not going to make you an expert in politics. Instead it will try to demonstrate by analyzing trends, that political factors are an important aspect of our business that should not be overlooked.

The particular kind of politics under discussion is often called "power politics." To understand that, consider the definition of politics. That's easier said than done! Maybe that is the nature of politics. It is less important to define than to appreciate it or recognize it when you step into it.

This may all seem rather remote from the typical case of, say, a public works officer (PWO), but is it? Are things that stable around your activity that there are no issues brewing that could affect the ability of the activity to perform its mission? Many of these factors will seem subtle and have more of a cumulative on the base. Others will be more overt and immediate. Often what may be brewing off-base may not be an off-base condition, but a reaction by those off-base to some action planned or underway on-base that is viewed by some as a threat or is opposed for any number of reasons.

You may say: "Well, that is none of their business." Technically you are right. But, politically, you are wrong. Because in the game of power politics, opposition can form and mobilize considerable force to seek to prevent some action on-base.

This will rarely be by direct action such as illegal obstruction, pickets, etc. Instead, the more prevalent form of opposition falls under the heading of "grumbling" and posturing through the press to get you to change. Others call this "encroachment." Do not for a minute discount the ability for a group of local citizens (by the way, do not call them "local" — it is a red flag term) to muster enough clout to delay or stop whatever it is you are doing. Mayors, city councilmen (councilpersons in the current terminology) and congressmen are attuned to these grumblings. Congressmen especially are effective at "getting to" the Navy to alter the status quo.

In the extreme, there may be some avenue of legal action open to the opposition. That could be serious, so do not entertain the notion that it would be "neat" to be sued. You may win eventually, but can you really afford the delay (to say nothing of the adverse publicity and explaining you or your skipper have to give to Washington) such legal action causes?

You never can tell how a judge may be influenced by the arguments of an irate citizenry. The "little people against the federal government" is a common theme that the press especially likes to dramatize.

Your CO, with most of his Navy experience at sea, may be even more uncomfortable in the political setting than the PWO. He probably can use all the advise he can get. The PWO needs to be aware of the political ramifications of actions under his cognizance and think about them *before* the pickets show up at the main gate or the first congressional inquiry shows up in the CO's office. Many of these reactions are predictable and it is important to advise the CO and the Public Affairs Officer (PAO) of these things as early as they

might be even remotely possible. Do not make the assumption that "no one will know."

Communications and proper prior planning are invaluable in putting the best foot forward when a dispute arises. Reporters are generally *invited* by your opposition to dramatize their side of the story. They will choose the time least convenient to you. Then the story gets written up (or shown on the eleven o'clock news) with the lamentable one-liner — "The Navy could not be reached for comment."

You may issue a response later and, even if successful in gaining a retraction, it will appear on page 42 with the crossword puzzles when the original story was on page one.

Some CEC officers have been involved in these political brushfires and have learned some lesons (often painfully) that are worth passing on. Officers in planning billets at the EFDs, numerous PWOs, and staff officers at various levels have been involved in political controversy. To those who have had a tour in the planning business, it sometimes seems that "Code O9P" at the EFDs stands for *politics* not planning. That's not all bad because the planners are in the best position to cope with change (which is another synonym for politics) than other elements of the facilities organization.

We should try to flush out and resolve as many political problems at the planning stage rather than when the project is underway or about to commence. If we have done our job, we should have advised the public of the effects of the project well before it becomes operational.

It is well to seek advice of staff consultants such as PAO, legal, and the EFD planners and others familiar with the technical aspects of the project or action. You should recommend to your CO that if he considers it prudent, that he advise his boss of the action *before* it is taken. This may not be comfortable for any of the participants because we are used to a monolithic command structure in the Navy. The political setting is almost the opposite: outcomes are less certain, there is a pluralistic public and events are not within our control.

Nonetheless, it is important to be prepared to proceed with a sure course of action that reflects well on the Navy and enhances your chances of serving Navy interest and neutralizing (as much as possible) the opposition.

As an aside, it is well to emphasize that there is no *single* public. There are constituencies. Which group or interest will influence the person(s) in authority on the outcome in dispute? Will the "battle" take place in the courts or in the political realm? What are the consequences of delay? What alternatives exist? Can they be accommodated? It is important to be able to demonstrate some ability to accommodate views of others and mitigate adverse impacts.

You will hear from the opposition and get little support from the apathetic many who do not view your project/action as a threat. In the end, you will have to influence the "movers and shakers" (politicians, editors, chamber of commerce, business groups, etc.) that the Navy's plan is correct and does not cause irreparable harm to others without adequate compensation. It is difficult to generalize, but the point here is: take the most positive position and attempt to neutralize the opposition by demonstrating some accommodating posture.

What about "flag waving?" You had better have something else favoring your project/action than to suggest that it is esential to "national security" or that to oppose it is somehow unpatriotic. Those arguments as much as they may appeal to you (remember you are already presumed to favor the Navy project), have less influence than in the past.

You will hear from the opposition . . .

You must make the case on the particular purpose your proposed action serves, and do not rely on generalities and appeals to partriotism.

Do not "lose your cool" on camera!

Gently remind the public of the importance of the base to the local economy, jobs, etc.

Elected officials, driven by the need to be cast in the best light to their constituents, will often line up against us even though privately they may acknowledge our legitimate interest. It has been said that the new politics involve the politics of scarcity (distributing the cutbacks) versus the politics of distribution (of benefits and services).

It is in that setting that it becomes more understandable that many interests will seek a "free lunch" at Navy expense or oppose something we propose which diminishes the perceived value of their property or way of life. This is the politics of the eighties — we may not like it, but that's the way it is.

With all that caution, are we helpless? No. Here are some things you can do.

- Increase your awareness of local political matters (read newspapers, etc.).
- Try to understand the legitimate interests of opposing groups.
- Demonstrate a willingness to listen.
- Do not rely solely on "regulations" which appear to give you little local authority.
- Do not oversell your project.
- Work closely with the PAO, counsel.
- Seek help from the EFD planners or other technical subject matter experts.
- Act quickly when you spot potential trouble. □

The Navy accelerates steel corrosion in concrete 10 - 40 years faster than nature

By THOMAS NOVINSON Ph.D.
Senior Research Chemist
Naval Civil Engineering Laboratory
• Port Hueneme, Calif.

The Navy has developed an invaluable tool for its 30-year fight against corrosion of steel reinforced concrete in waterfront structures. The endless problem is costing the Navy approximately $15 million a year to repair and maintain steel reinforced concrete structures such as piers and seawalls.

Scientists at the Naval Civil Engineering Laboratory (NCEL) have developed a unique all-glass apparatus that artificially corrodes steel reinforcement in marine concrete 10 to 40 years faster than nature.

The Laboratory's Accelerated Corrosion System, a one-of-a-kind capability, can test and evaluate a large number of corrosion protection methods and products within a few months, instead of the several years it takes to achieve the same results in a natural environment. Valuable time is saved because it normally takes from 10 to 40 years to observe a similar degree of corrosion of steel reinforced concrete in the ocean.

The author developed the system with William E. Lorman, recently retired NCEL civil engineer.

Corrosion is a complex process involving temperature, oxygen concentration and salt concentration. The system exposes steel reinforced concrete to a harsh environment of heated oxygen and seawater in an all-glass apparatus. Temperatures of the gas and water phase can be monitored electronically with sensor and probes. This artificial environment is more corrosive than natural conditions at Diego Garcia, Guam, Hawaii, and other Pacific sites.

The system is playing an integral role in the Laboratory's research aimed at determining the best method to prevent rusting of steel rebars. Three methods are being investigated. They are: addition of chemical corrosion inhibitors (admixtures) and water repellants to the concrete mix; coating of the steel with more active, sacrificial metals; and organic coatings on the steel to prevent rebar contact with seawater and dissolved oxygen.

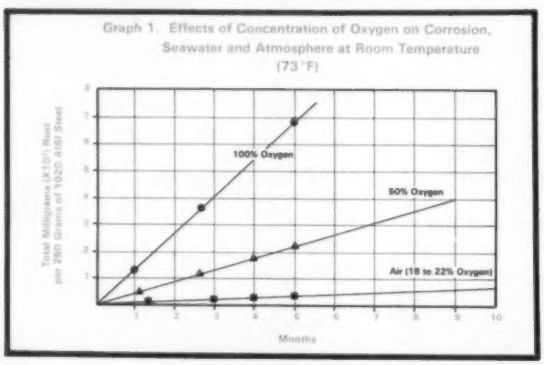
When concrete is saturated with seawater containing oxygen, the rebars start to rust, which in turn causes volume expansion of corrosion products, forcing the concrete to expand and crack. This deterioration process may take as long as 40 years in pier pilings in northern oceans, or as little as 10 years in a tropical environment.

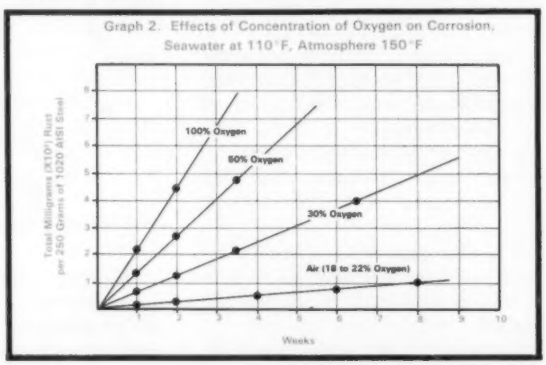
Mr. Lorman developed an improved method that involved periodic wetting and drying of concrete specimens on a rotating drum in a stream of warm air. This procedure ages and fatigues concrete but does not accelerate the corrosion of steel rebars.

More recently, solutions of hydrochloric acid have been used to corrode the steel embedded in concrete. Also, a voltage has been impressed in the steel rebar with a six-volt battery. These methods may cause embedded steel to corrode but they do not simulate accelerated natural corrosion in seawater the Navy needs to predict performances of anticorrosive methods during the next several decades.

Later, it was determined that the concentration of oxygen and water temperature actually were the limiting factors. It has since been discovered that concentrated oxygen in a saline environment will corrode steel at 10 times the rate found in nature. Steel reinforced concrete specimens are placed vertically on a glass support shelf within a large glass tank covered with a glass lid. The tank is then filled partially with seawater. The bottom halves of the specimens are immersed in seawater and the top halves are exposed to the atmosphere. Pure oxygen (100%) is bubbled through the water, forcing the air (18% oxygen) through vents in the lid. Under these conditions the atmosphere contains more than five times the amount of oxygen normally present in the air.

Graph 1 illustrates the effects of oxygen enrichment in the atmosphere upon the corrosion of steel in concrete partly immersed in seawater. In five months, less than 50 mg of rust have formed on the 250 gm steel rebar at room temperature (73°F). Under the same conditions, a 50% oxygen atmosphere (50% O_2/ 50% N_2) has produced 250 mg of corrosion products. A pure oxygen (100%) atmosphere has produced about 650 mg of rust in the same amount of time.


Graph 1. Effects of Concentration of Oxygen on Corrosion, Seawater and Atmosphere at Room Temperature (73°F)
Total Milligrams (X10²) Rust per 250 Grams of 1020 AISI Steel
100% Oxygen
50% Oxygen
Air (18 to 22% Oxygen)
Months


Graph 2. Effects of Concentration of Oxygen on Corrosion, Seawater at 110°F, Atmosphere 150°F
Total Milligrams (X10²) Rust per 250 Grams of 1020 AISI Steel
100% Oxygen
50% Oxygen
30% Oxygen
Air (18 to 22% Oxygen)
Weeks

Graph 2 illustrates what happens when the water and air (atmosphere) tempertaures are elevated along with increasing concentrations of oxygen. In only two weeks, the tanks with 100% oxygen (at 110°F seawater and 150°F gas temperature) has produced 600 mg of rust compared to only 30 mg of rust obtained with an atmosphere of air.

Among the materials being tested at NCEL are:

Polymer Coatings for Steel

- electrostatically fusion bonded epoxy
- dipped epoxy
- dipped polyurethane
- dipped polyester
- sprayed silicone-alkyd
- dipped chlorinated rubber

Admixtures for Concrete

- calcium nitrite (Darex Corrosion Inhibitor)
- sodium/potassium bichromate
- sodium benzoate
- sodium alginate (water repellant)
- zinc sulfate

Metallic Coatings for Steel

- zinc
- cadmium
- nickel
- chromium

A summary of the results of these tests will be available later this year. The Navy already plans to use one of the methods in full scale corrosion protection of a new reinforced concrete pier in 1983-84.

Future laboratory work will be directed toward screening more chemical corrosion inhibitors and steel coatings. Other research will concentrate upon modifying such parameters as water temperature, salt concentration, oxygen pressure, and concrete porosity in the system.

NCEL scientists believe that the acceleration technique will save the Navy millions of dollars by rapidly screening potential rust preventatives or steel coatings, and by predicting long-range performances of such products during a 30-40 year period. □

Before a tank that represents tropical water studies, Chemist Dr. Tom Novison holds two types of steel bars. The dark ones are untreated or uncoated. The lighter bars are coated with a special poxy that protects against corrosion.

Commander's Award

CDR George A. Rogers (left) accepts the bronze Commander's Award for Editorial Excellence from CAPT C.E. Christianson.

Nominations for the awards were made by an awards committee comprising of CAPT J. B. Caughman, Jr., commanding officer of the Naval School, Civil Engineer Corps; Les Helsdon, editor; and Judith Johnston, Public Affairs Officer, NAVFAC, HQ.

For Editorial Excellence

CDR GEORGE A. ROGERS, Deputy Controller, Chief of Naval Education & Training, has received the Commander's Award for Editorial Excellence for his contribution to The *Navy Civil Engineer* which appeared in the Spring 1981 edition, titled "Contract Services: Necessary For Survival?" The bronze award was presented by CAPT C.E. Christianson, Commanding Officer of the Pensacola Public Works Center, during a special ceremony.

Honorable Mention

☆ **NANCY DUNN DELAVAL** for "Security Envelope" Appearing in Spring 1981 edition

☆ **CAPT A. S. POOLE,** CEC, USN, for "Key Participant from Norway to Garcia" Appearing in Summer 1981 edition

☆ **VINCENT A. TRANSANO** for "The Long Historical Struggle to Gain Professional Recognition" Appearing in Summer 1981 edition

ARCHITECTURE

By ERIBERTO D. GUIANG, EA1, USN
Instructor, Military Readiness Division
Naval School, Civil Engineer Corps Officers
• Port Hueneme, Calif.

"The least appreciated of all the arts"

While the names Picasso, Rembrandt, Norman Rockwell, Michelangelo and Leonardo Da Vinci will more often than not be recognized by anybody, the names Le Corbusier, Walter Gropius, Mies Van Der Rohe and Frank Lloyd Wright will seldom ring a bell. Although they are all artists and well known throughout their chosen professions, the master architects Le Corbusier, Gropius, Mies and Wright were not as popular as their counterpart painters and sculptors. Similarly, a painting was sometimes referred to as a "Picasso" or a "Rembrandt" but a building was never a "Frank Lloyd Wright." Also, despite the fact that Leonardo of Vince, Italy, and Michelangelo Bunarroti were also architects, their paintings and sculptures overshadowed their architectural works.

Of all the arts known today, from practical arts like painting and sculpture to fine arts like drama and music, architecture is the least appreciated. Perhaps this is the very reason people instinctively look for the painter's name on a painting but not ask for the architect's name viewing a piece of architecture. No wonder not too many people know that the Eiffel tower in Paris was named after its designer.

Consequently, it was also no accident that a certain Andrew Devane, an architect from Ireland who studied with Frank Lloyd Wright in the Taliesin foundation in 1948, almost missed his chance of a lifetime to meet a "true" architect and see a "true" architecture, for he was looking for a "Frank Lloyd Wright, Taliesin West" with no postal address. Much to his surprse nobody in Phoenix — airlines, post office, telephone operators, police, hotels and people on the street — had ever heard of Frank Lloyd Wright much less Taliesin. He found the resident who had heard of Frank Lloyd Wright at the only gas station in the small desert town of Scottsdale, Arizona.

Conincidentally, on February of 1952, in his last article for *The Architectural Record,* Frank Lloyd Wright, with regard to his organic architecture stated that "being truly individual, organic architecture lack the journalist and America is nothing if not journalistic." Thus he explained Andrew Devane's experience in Phoenix.

Although Frank Lloyd Wright contended that "the Box-Modern-Architecture is now so easy to grasp that any boy with three months experience can practice it," architects are a talented bunch of people. In designing their buildings, they religiously deal with such matters as situation, space, scale, balance, color and light.

In some instance, they remove or reduce the limitations, in others they design around them. Frank Lloyd Wright epitomized the latter for he believed that the limitations are the architect's best friend. His "Falling Water House" for the Kaufmanns of Bear Run, Pennsylvania, clearly illustrated this belief.

He cantilevered almost half of the house over a stream, adapted the house over the site which prompted Karl Kamrath, who was then a practicing architect in Houston to remark that "it is often difficult to discern in Wright's work where the building stops and the landscape begins as the outside seems to flow into the inside."

Despite the fact that architecture is the art of building, not all buildings are considered pieces of architecture. By the same token a bicycle shed is a buliding but the Taj Mahal is a piece of architecture. To some, a building is associated with the notion of cheapness while to others architecture denotes conspicuous waste. But for a building to be considered a piece of architecture, it must possess three characteristics: "utilitas" or suitability to use by human beings; "firmitas" or stability and permanence; and "venustas" or beauty.

The second requirement is constant but the first and the third vary in relative importance according to the function of the building. Julius Norwich explained their importance in his book *The Great Architecture Of The World* when he said:

It is not enough for an architect to produce a beautiful building as a painter might produce a picture or a composer a symphony; his work must also be suited to the purpose for which it is designed. If it is not, if he momentarily allows aesthetic considerations to outweigh practical ones to the point where his building fails in any degree to fulfill the purpose, then it fails also as a work of architecture.

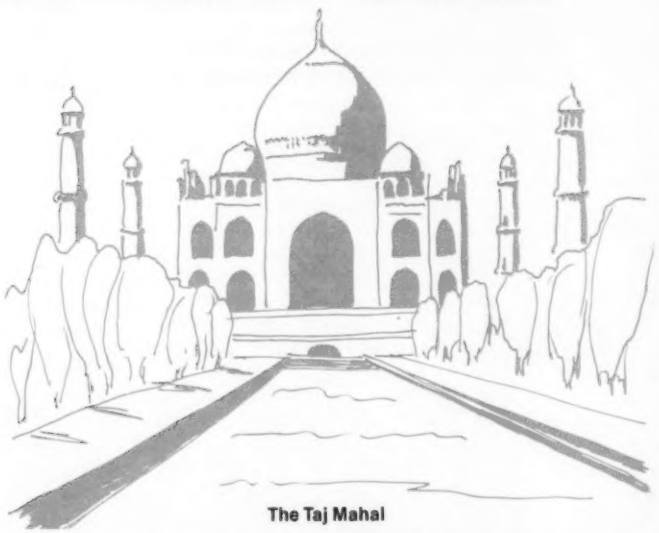
Obviously, architects' most special gifts to the rest of us is to create ingenious ways of combining beauty and practicality. Ways as explained by Le Corbusier as "avoiding the preteniousness of false glamour and recognizing the merit of informal or inexpensive designs with style."

Additionally, architects provide us with a bounty of imaginative ideas to improve our surroundings and habitat. Consider the case of the sliding dining table between any dining room and kitchen, instead of needing two tables, one serves both areas.

How about the single chimney providing two fireplaces — one in the living room or family room and one in the terrace or patio. Think about a hanging door raised to form a sun shelter in the summer, lowered to serve as a storm door in the winter. Another example is a wooden terrace which can be drawn up to serve as a giant shutter in the winter. What could be more practical than double usage for otherwise time honored single purpose items.

Evidently, functional-aesthetic treatments in residential houses envisioned by architects are all around us but we seldom pay any attention to them. There are several reasons for our seemingly "could care less attitude" and Julius Norwich very neatly summed it up when he explained:

It is I think, this functional aspect which has been responsible for making architecture the least appreciated of all the arts. That and the fact that there is much too much of it. Because we need it to live, we see it all around us all the time; and because we see it all around us, we tend not to see it at all. We take it for granted, and our sensibilities no longer reach to it in the same way that they would if we were confronted with a painting or a piece of sculpture.



The Taj Mahal

And because we now treat our fine buildings less than our fine pictures and good books it is very fitting to say that our houses have no more meaning to us aesthetically than a stable has to a horse. How right Frank Lloyd Wright was when he stated that art to one is as high as a heavenly Goddess; to another only the thrifty cow that gives him his butter. □

Museum needs dolls

The CEC/Seabee Museum at Port Hueneme needs your help — specifically donations of dolls which depict areas of the world where the Seabees and the Civil Engineer Corps officers have served. The Museum has an interesting collection now, but it is far from complete. Additionally, the new wing of the museum which is slated to open in the summer of 1983, will feature the doll collection as its largest and central exhibit.

Please help if you can. The only requirement is that the dolls be approximately six to twelve inches in height and be dressed in native costumes of their country. Send your donations to the CEC/Seabee Museum, CBC, Port Hueneme, CA 93043. Need more information? Call Hark Ketels at (805) 982-5163 or Autovon 360-5163.

Dolls are needed from these areas:

Algeria
Central African Republic
Ethiopia
Liberia
Morocco
Sierra Leone
Tunisia
Upper Volta
China
Lebanon
Turkey
Ascension Island
Azores Islands
Bermuda
Iceland
Australia
Borneo
Emirau Island
Goodenough Island
Kiriwina Island
Morotai Island
New Guinea
Schouten Islands
Soemsoem Island
Woodlark Island
Germany
Wales
Greece
Crete
Sicily
Canada
Newfoundland
Argentia
Canal Zone
Costa Rica
El Salvador
Honduras
Nicaragua
Panama
Admiralty Islands
Aleutian Islands
Bismark Archipelago
Bonin Island
Caroline Islands
Ellice Islands
Gilbert Islands
Hawaiian Islands
Line Islands
Marshall Islands
New Caledonia
New Hebrides Islands
New Zealand
Philippine Islands
Pheonix Islands
Ryukyu Islands
Samoa Islands
Society Islands
Solomon Islands
Tonga Islands
Volcano Islands
Bolivia
British Guiana
Chile
Columbia
Surinam
Ecuador
Brazil
Andros Island
Antigua Island
Barbados
Cuba
Curacao
Dominican Republic
Haiti
Puerto Rico
St. Lucia Island
Trinidad
Virgin Islands
Iran
India
Afghanistan
Syria
Iraq
Paraguay
Laos
Austria

Command Management Plan Guidance

By RADM W. M. ZOBEL, CEC, USN

The Naval Facilities Engineering Command is faced with a significant challenge in providing the required shore facilities necessary to support the expanded Navy.

The decade of the seventies saw a diminishing resource level available to the Department of Defense, both in funds and in manpower allocations. NAVFAC's budget and personnel ceilings diminished accordingly. The current administration has turned that trend around, and with the support of the American people, is embarked upon an effort to strengthen the military capability of the United States to the level required to support its foreign policy, and to deter aggression against our nation and its allies.

Under this program, the CNO, in concert with the Secretaries of Defense and Navy, charted for the U.S. Navy, during the fiscal year 1982 Congressional hearing, a greatly expanded Naval Force to meet the challenges of the 1990's, and into the next century. NAVFAC's role in support of this expanded Navy will significantly increase our work load in every area of our responsibilties. We must ensure efficient and effective execution of this increased work load.

While it appears that sufficient funds will be available for the accomplishment of this work over the coming decade, personnel resources can be expected to remain at their current level, or even slightly diminish. This, then, is the challenge we face. Our manpower is the constrained quantity, while the work load, together with the funds to accomplish it, is increasing.

I am convinced that what is needed is deliberate and courageously creative action, not only to make it possible for us to accomplish our tasks, but also to clearly communicate the reality and validity of our stated resource requirements to higher authority, and to demonstrate our resourcefulness and dedication in meeting our responsibilities for fleet support.

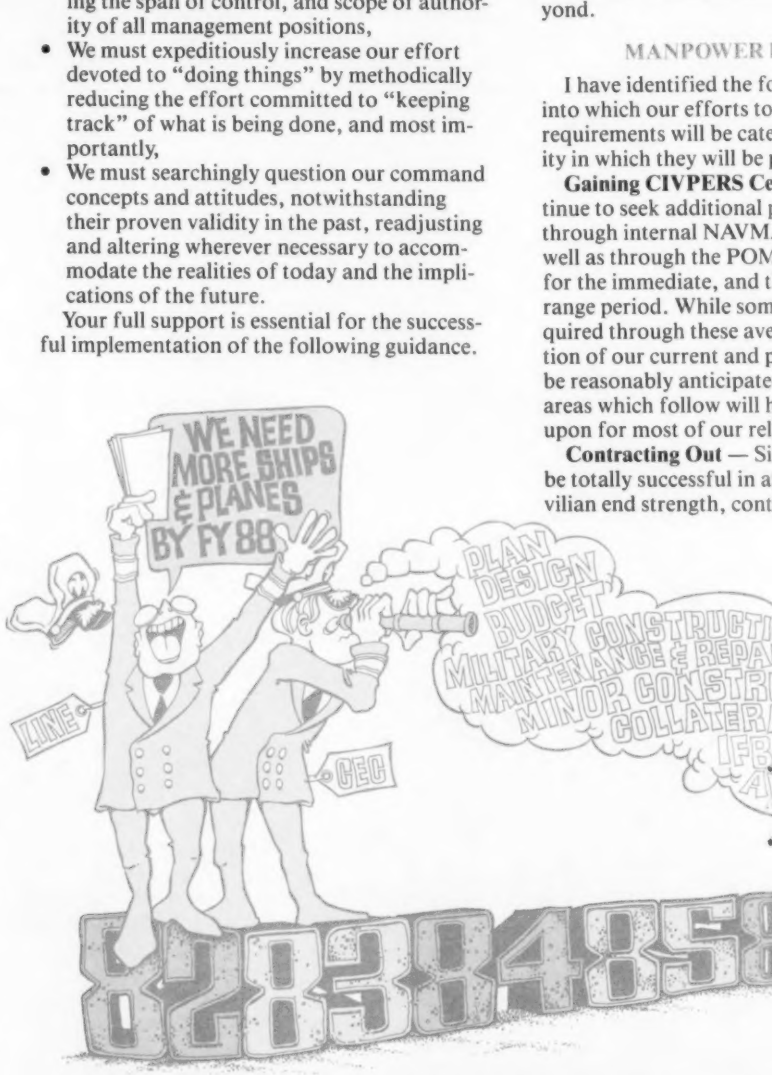
The following guidance was compiled for use in developing the FY 83 Command Management Plan, for planning the FY 84 budget submission, and for programming resources in the FY 85-89 time frame.

I have not attempted to set forth this guidance in any particular priority of importance, effectiveness, or difficulty of implementation. Each guidance statement stands alone as an individual item of consideration and action that I expect you to pursue in the management of your programs, and in the administration of your organizations.

Before setting forth the guidance, however, I strongly advocate the following general management considerations as prerequisites, if we are to succeed in our efforts:

- We must effectively reduce complexity in our management and functional processes,
- We must objectively reduce the hierarchical levels existent in our organization by increasing the span of control, and scope of authority of all management positions,
- We must expeditiously increase our effort devoted to "doing things" by methodically reducing the effort committed to "keeping track" of what is being done, and most importantly,
- We must searchingly question our command concepts and attitudes, notwithstanding their proven validity in the past, readjusting and altering wherever necessary to accommodate the realities of today and the implications of the future.

Your full support is essential for the successful implementation of the following guidance.



CNO PRI

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MANPOWER

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Contracting Out — Si
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PRIORITIES

our priority programs of Operations, namely, Readi- Force Structure, and Mod- t in all our management actions, in that same prior- to will be reflected in our ning, and internal resource s form the focus of our ment Plan for FY83 and be-

ER INITIATIVES

he following basic areas rts to satisfy our manpower e categorized, and the prior- ll be pursued.

S Ceiling — We will con- onal personnel ceiling AVMAT reallocations, as POM process; the former and the latter for the longer some relief may be ac- e avenues, the total satisfac- and projected needs cannot ipated. Therefore, the five will have to be depended ur relief.

— Since we do not expect to l in attaining additional ci- contracting out will bear the brunt of our attack on our manpower / work load dilemma. We will marshal what manpower gains we can bring about through other means to enhance the contracting capability of our organization, e.g., contracting, construction management, inspection, material procurement, etc.

New initiatives for contracting out are to be sought and put into motion over the entire spectrum of our work load, keeping in mind that a solid base of basic, or unique, in-house expertise must be maintained. Program managers will assure an expeditious and effective exchange of ideas and initiatives throughout our field organization. Any adverse impact resulting from contracting out is to be clearly identified. No reductions in force are planned or contemplated, other than as a direct result of OMB A-76 actions.

Commercial Activities Program — Closely associated with the effort addressed in the previous paragraph, but addressed here separately because of its vital importance, the Commercial Activities (CA) Program shall be aggressively pursued. Timely completion of our cost studies is imperative. We will assure that competent, knowledgeable personnel are assigned responsibilities in this area of effort. The CA Program is here to stay, and will grow in scope. We must assume that if we fail to complete our cost studies on time we will nevertheless lose our decremented end strengths. We must also provide technical assistance within our limited resources to other commands to assist them in achieving their assigned CA Program responsibilities.

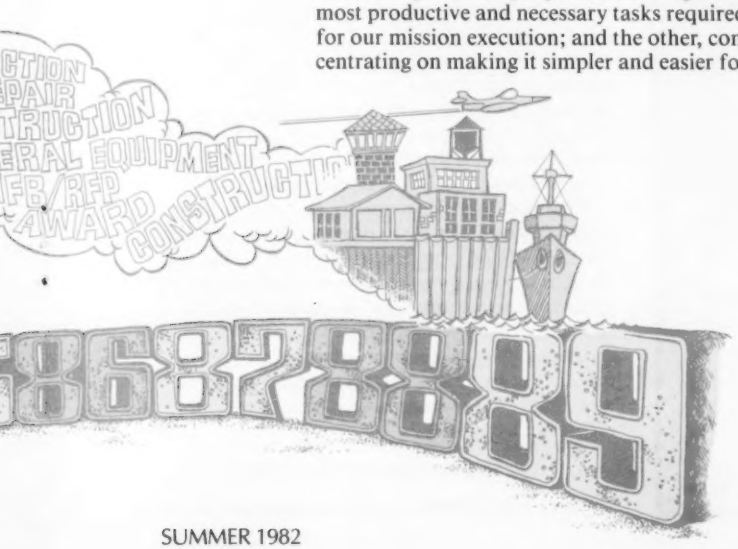
Productivity — We will focus more intensely, and more effectively, on the area of productivity. We must clearly understand that productivity is not a quantity, but rather, it is the ratio of people to output. Our effort in this area will be a two-pronged advance; the one, concentrating on insuring that our people are working on the most productive and necessary tasks required for our mission execution; and the other, concentrating on making it simpler and easier for our people to pursue their work (e.g., greater use of word processing, ADP, electronic mail, improved tools and equipment, streamlining and simplifying administrative and work processes, etc.).

This cannot be a token effort. We must show tangible evidence of progress in productivity enhancement, in all NAVFAC programs, in the headquarters and in our worldwide activities. All NAVFAC programs will develop, implement, and maintain productivity enhancement initiatives, under the central cognizance of the Assistant Commander for Public Works Centers.

Organization — Organization is like a shrub that grows and must be periodically trimmed and reshaped to assure proper growth and viability. I want our organizations, headquarters and field, to be pruned and reshaped for optimum efficiency. Simplification will be the prime criterion. An intricate and complicated organizational structure breeds intricate and complicated procedures, and these defeat efficiency and productivity. We will reduce vertical layering and horizontal staff "cul de sacs." Our work flow through the organization shall determine its structure, rather than vice versa. Field activity organizational changes will be processed in accordance with current NAVFAC directives.

Program Management — We will take action to readjust our program structure and management processes, with the same aims in mind as set forth above in the organizational area. We must fit our programs to the realities of our current circumstances and future anticipated environment. We will alter our management processes where necessary to assure that our management planning does not merely extend yesterday into the future by extrapolation, but rather, functions as an opportunity for decision and action that can turn future "change" to "advantage." Additional program management personnel cannot be allowed at headquarters or in the field. We must carefully review program management requirements and staffing with an eye towards eventual reductions.

Reimbursable Effort — We will not take on reimbursable work which is not NAVFAC mission-oriented, notwithstanding economies which might accrue the customer if we were to perform his work. All NAVFAC manpower *must* be reserved and used for work that is clearly in consonance with our responsibilities in areas under our cognizance. This does not preclude the acceptance of valid reimbursable work that is in direct support of the fleet, or in consonance with our role as DOD construction agent. Additionally, we shall seek the assistance of other governmental organizations, at all levels, in the accomplishment of our workload, reimbursed by us.



"What is needed is deliberate and courageously creative action"

CUSTOMER FUNDING

There are continual questions being raised by our customers, and even by our field activities, as to what services NAVFAC pays for, and what services our customers are expected (and required) to pay for. The task of clarifying this issue, and developing simple effective guidance covering the funding of NAVFAC services, lies in the area of cognizance of the director of programs and comptroller. All program managers will give priority support to his efforts in this regard, in order that the matter may be resolved, and the results promulgated, by not later than the end of FY82.

CEC BILLET STRUCTURE

The rapidly changing Navy makes it imperative that senior CEC officers be detailed to billets which maximize the use of their knowledge and experience in solving the major shore activity issues to be confronted by the expanding Navy. Accordingly, in developing the Zero-base Study, we will carefully review the billet structure for all commanders and captains.

PW TECHNICAL MANAGEMENT

Navy organization, administration, and management responding to the demands of economics and political realities, has tended through the years to bring about an ever-widening gulf between NAVFAC and the public works departments of non-NAVFAC activities. NAVFAC is chartered to carry out specific technical responsibilities in areas of public works and public utilities at all naval activities, notwithstanding the "command" or "financial" chain in which the activity is located.

We must carry on a continual dialog between NAVFAC and the various public works officers on duty throughout the Navy, continually reaffirming the CEC-community bond which exists, and providing mutual communication and support on the common challenges being faced in assuring adequate civil engineering support to the Navy.

NAVFAC is *expected* to provide this technical management cognizance, and I *expect* the EFDs to assure that this responsibility is, in fact, being carried out. I want every public works officer to *know,* by our actions, that NAVFAC is really on his side.

Further, I want the entire NAVFAC organization to understand that we exist *only* to assist the operating Navy to perform its mission and that our public works officers are on the cutting edge of that interface. To the extent that we fail to deliver quality products for which we are responsible, we cause Navy mission degradation.

DECENTRALIZED EXECUTION

One of the significant precepts of our management philosophy through the years has been "centralized control and decentralized execution." The role of headquarters is to manage, at the "corporate" level. The role of our field activities is to perform the work needed to support the Navy. Complete implementation of this basic tenet must be assured and periodically reaffirmed.

NAVFAC SHORE ACTIVITIES INTERFACE

We need to understand better our relationship with the field activities of the Navy that we are charged to serve, but with whom we rarely come in direct organizational contact. For example, in one of our EFD's area there are over 400 separate naval shore field activities (well over 100 of these are naval reserve training centers), however, only approximately 5% of these activities have CEC officers assigned.

We must reach the majority of Naval activities which rarely come in direct contact with the CEC/NAVFAC community, to assure them and to reassure ourselves, that we are really working to satisfy their needs. Communication is vital to mutual understanding on common areas of concern. We must become better communicators; better receivers, as well as better transmitters. Sufficient resources exist to support our effort in this regard.

WORKLOAD VALIDATION

There is an inherent desire in organizations to

Change can help — not hinder

The recently published "Command Management Guidance, Fiscal Years 1983 - 89" (CMG-83) will affect not only the entire Naval Facilities Engineering Command, but will have spillover impact on the Civil Engineer Corps and the Naval Construction Force. CMG-83 was developed to provide guidance upon which the Command will base its actions during the decade of the 80's.

One basic intention of the CMG is to use future change to help — rather than hinder — our efforts to provide day-to-day support required by the operating forces of the Navy.

It is particularly important for all players on the NAVFAC-CEC-Seabee team to understand where we are going, as well as the basis of our actions; therefore, the portion of CMG-83 with the broadest community-wide implications is published in this issue of our Navy Civil Engineer Magazine for your personal review.

W. M. ZOBEL

"My intent is to set the tone . . . for the command to follow in the decade ahead"

do as much as possible, rather than as much as is necessary. We must be able to discern the difference, and assure that the products and services provided by NAVFAC are of high quality and truly support the actual and most pressing needs of the Navy.

Toward this end, a work load validation team will be established periodically to objectively review and verify the current and future work load upon which our resource requirements are predicated. Our work load determinations must be clearly identified, and accurately form the basis for our resource requirements programmed in the out-years.

CUSTOMER SATISFACTION

Our professionalism as a command and corps rests more on what we do and how well we do it, rather than on the training, education, and credentials held by our personnel. While the latter areas are vital to identifying personnel potential, the final measure lies in the quality of the product provided. Customer satisfaction is our ultimate goal and the gauge by which we are measured. We must execute our responsibilities accordingly.

ENGINEER UTILIZATION

Engineering talent is a vital resource of this command and demands attention to assure the fullest possible effective use of the limited quantity available. We must insure that engineers are used for engineering work to the maximum extent possible, and that administrative and non-technical work requirements are performed by personnel of other more appropriate disciplines.

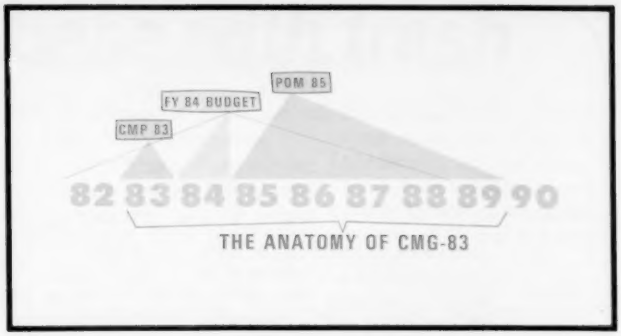
QUALITY OF PROCUREMENT

The Administration and the Congress (and the American people) are agreed that the cost of the federal government must be reduced. Thus far it has been the non-defense areas which have received the reductions, while DOD budgets have increased in FY82 and the out-years.

There will undoubtedly be ever-increasing scrutiny by the Congress, and private groups and organizations, on the manner in which the increased defense budgets are utilized, as wll as the results (benefits) gained from the increased expenditures. Procurement programs will particularly receive close attention. Our procurement processes, in all their phases, as well as the products delivered, must be able to stand up to intense public examination.

IMPROVEMENT OF MANAGEMENT SYSTEMS AND PROGRAM EXECUTION

For more than a decade, NAVFAC-



THE ANATOMY OF CMG-83

ENGCOM has devoted considerable effort to develop and maintain management information systems. Evaluation of the systems demonstrates that their quality and effectiveness have been impaired, in many cases, by the poor quality of data input and maintained. This situation discourages and retards acceptance and utilization of the systems by individual managers. This further reduces emphasis for data quality.

NAVFAC's credibility as the Navy's professional facilities management organization must not be found lacking on the basis of ineffective management systems. In this vein, all addresses are directed to insure that the emphasis on utilization of automated systems is at a level which will encourage managers/executives to depend upon the management systems as a major decision tool on a regular basis.

This effort is particularly important in the current era of increased defense program levels at the expense of non-defense agencies. The capability of DOD to manage and control this work load has been questioned, and will most certainly be the subject of numerous audits and congressional inquiries. In this regard, NAVFAC must be in a position to demonstrate that the taxpayers faith in our funds and product stewardship has been sound in every way.

"QUALITY OF LIFE" IMPROVEMENTS

Specific steps will be taken to improve the living and working conditions of our military and civilian field personnel. This effort will not be limited to facilities and equipment, but will address all facets affecting the workplace and the morale and well being of our personnel.

CAREER LADDERS/TRAINING

As our work mix changes we will make evolutionary changes in the structure of our civilian workforce, as well as in their career ladders and training, in order to ensure that they are mutually supportive.

The guidance set forth above, is not, and cannot be, detailed for management action. My intent is to set the tone, and start us off in the direction I consider necessary and prudent for the command to follow in the decade ahead. □

SECURE VOICE TELEPHONE - Classified telephone conversations can now be made to and from the Naval Facilities Engineering Command Headquarters. Technically known as automatic secure voice communication (AUTOSEVOCOM), this new telephone will permit classified voice communication, up through Top Secret, to any other activity worldwide also having an AUTOSEVOCOM installation. This telephone is located in room 11S56, a restricted area within headquarters housing the Navy JADREP Office. Persons planning classified calls into headquarters are requested to notify the potential recipient in advance so that the recipient can arrange to be in room 11S56 when the telephone rings. The AUTOSEVOCOM telephone number is 2378. The unsecure Autovon number for the Navy JADREP Office in room 11S56 is 221-9155.

NAVFAC Code 06

PROJECT smart (Source Management of Resources and Time) - Begun in January 1981, Project smart is a NAVFAC-wide undertaking that will result in major improvements in automated data processing services to the six engineering field divisions. The objective of the project is to plan, develop and implement a new user-oriented MIS which will be developed under the concept of distributed data processing. The two working groups that met recently at LANTDIV for a two-week session represented the Facilities Acquisition and Financial Services sub-systems. An essential component in the development of any new MIS is the active involvement of all organizations to be supported by the new system. CDR Ken Fusch, the project officer, estimates that the entire project will take approximately five years to complete.

NAVFAC Code 01

EXPANSION OF UNDERWATER CONSTRUCTION TEAMS (UCTs) - One of the successful issues in POM-83 is the expansion of the UCTs by the addition of one officer and 17 enlisted billets. UCT-ONE in Little Creek, Va., and UCT-TWO in Port Hueneme, Calif., will each acquire one diving qualified Warrant/LDO who will serve as operations officer and 17 additional (sea duty) construction rating divers. Seabee candidates require a minimum of two years of experience in an NCF unit prior to application for second class diving school. An active recruiting effort is currently underway. For more information, contact either UCT or LCDR Cherry at NAVFAC HQ (Autovon 221-0505).

NAVFAC Code PC-22

Navy to heat base with trash

By RONALD E. NIEMI
P. E, Wis.
Project Manager for
LANTDIV MILCON
NAVFAC HQ
• Alexandria, VA.

The Naval Facilities Engineering Command, through its Atlantic Division, is designing a new steam plant to be constructed at the Norfolk Naval Shipyard at Portsmouth, Virginia. The new plant will be capable of burning refuse derived fuel (RDF) and coal and will replace the 61-year-old existing plant.

The refuse derived fuel will be obtained through a 30-year contract with the Southeastern Public Service Authority (SPSA), who will construct an RDF production plant nearby and sell RDF to the Navy.

The Southeastern Public Service Authority (SPSA) represents seven local governments consisting of Norfolk, Portsmouth, Virginia Beach, Suffolk, Franklin, South Hampton County and Isle of Wight County.

The RDF that will be provided by SPSA will be produced from material commonly referred to as garbage and refuse.

Certain material, however, because of physical, chemical or infectious characteristics which may pose a substantial hazard to human health or the environment or which could impair the operation or capacity of the RDF plant or power plant, will be excluded.

The RDF shall be in conformance with the following specifications established by the Navy and SPSA: 4000 BTU/lb minimum; 100% particle size less than 4″; 30% moisture content maximum; 17% maximum as ash; and 5% separable inert materials, by weight.

The SPSA, at their expense, shall furnish, install, operate and maintain all facilities required to furnish RDF. SPSA will also provide for the collection and delivery of processable solid waste from the surrounding areas to the RDF plant. They shall also deliver the RDF to the Navy steam plant and dispose of any ash.

The Navy shall procure all RDF which it requires (with a minimum of 3.24 MEGA MBTU each year) for the production of steam and electricity to be consumed at the Norfolk Naval Shipyard. In addition, SPSA may provide, and the Navy may purchase, an additional amount of RDF up to 1.8 MEGA MBTU/year.

The electrictiy produced from this additional RDF will be sold to the Virginia Electric Power Company for their use in the surrounding area.

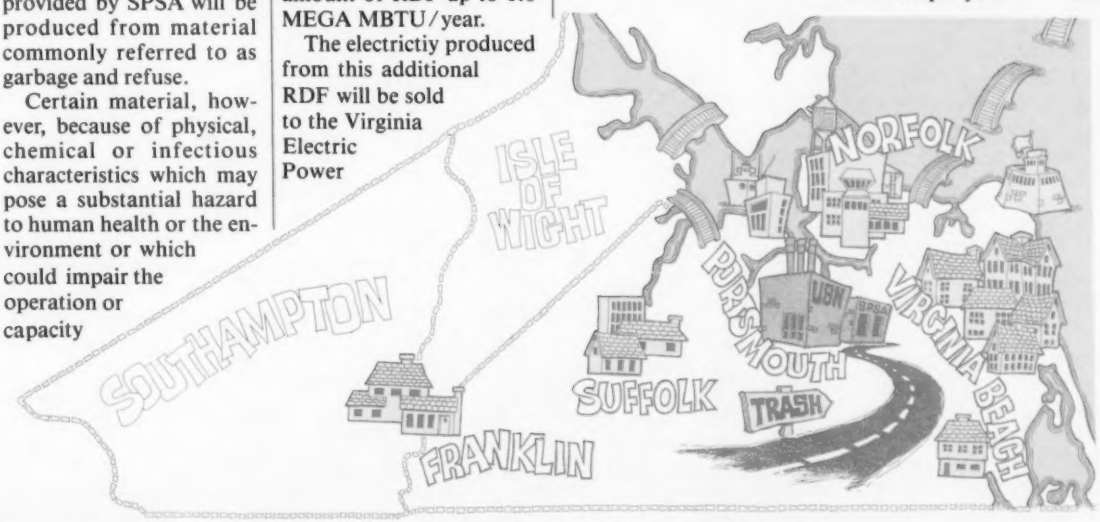
The Steam Plant will be funded by MCON appropriations and be phase funded. The total estimated cost of the project is 172 million dollars. The first phase will be funded in FY 1983 in the amount of 33 million dollars and consists of site demolition, relocation of a Property Disposal Office and procurement of long lead items.

Atlantic Division is accomplishing the construction using two-step contracting procedures, in which the contractor not only constructs the plant but also designs it in accordance with criteria established by the Navy. This affords the government the opportunity of evaluating the compatibility of boilers, turbines, associated equipment and structures ensuring a fully coordinated acquisition.

The new power plant, as presently being designed, will consist of four 180,000 lb/hr spreader-stoker boilers generating steam at 825 psig and 750° F, and three automatic extraction condensing turbine generators, each capable of providing 16 MW of electricity in the full condensing mode.

The boilers will be capable of burning any combination of RDF and coal, up to 100% RDF and 100% coal. The project also includes coal handling equipment, coal and RDF storage facilities, pollution abatement equipment, water treatment system, electrical and mechanical distribution systems and demolition of the existing plant.

Construction of the new RDF plant and steam plant will replace the 61-year-old unreliable, oil-fired steam plant at Portsmouth; provide electrical power and steam for the Naval Shipyard at Portsmouth; correct a solid waste disposal problem that exists in the Norfolk area; and save energy at the shipyard, since it will use a combination of trash and coal instead of oil. Approximately 800,000 barrels of oil will be saved per year. □



Best weapon against contract claims? Accurate records!

Accurate records should be kept.

By LCDR W. B. BRITT, CEC, USN
P.E., N.Y.
Acquisition Coordination Officer, Northern Division, NAVFAC
•Philadelphia, Pa.

To many CEC officers, the high point of an exciting career is a tour as the resident officer in charge of construction (ROICC) or as the assistant resident officer in charge of construction (AROICC). Both are Navy Civil Engineer Corps (CEC) officers who, as area construction managers, are responsible for the field inspection and administration of construction contracts for the Naval Facilities Engineering Command (NAVFAC).

It's probably the feeling of personal satisfaction of getting back close to engineering type work — actually being able to touch, feel, and smell engineering drawings again or in some cases even becoming familiar with the details of these plans.

There are rules and regulations, to be sure. To the novice, the P-68 (NAVFAC Contracting Manual), the Contract Specifications and the DAR (Defense Acquisition Regulations) seem unduly burdensome. But for the most part, these documents are synchronous, they complement each other. That plus NAVFAC's

Read the rules and regulations.

many years of experience in the art of construction contracts forms a total system that includes not only the AROICC, but the contract specialist, the construction representative, the engineering field division (EFD) staff, and ultimately NAVFAC's headquarters staff. The system generally follows a logical sequence of steps, with each segment backing up and supporting the other.

It is not a perfect system, of course. Otherwise there'd be no need in each contract for what is commonly called the disputes clause.

A dispute can result in a claim, and that is the discontinuity in the total system. A claim can take the naive engineer, with the love of structure and order, into the highly complex, bewildering and often frightening world of the legal profession.

In October 1977, a $3 million NAVFAC construction contract was awarded for some fuel tanks, a pipeline to a new pumphouse, and new pumping stations on an existing pier. The tank site was an existing hillside, where the earth work consisted of excavating approximately 50,000 yards of materials and reusing about 35,000 yds of it to construct the tank berms, with the remaining 15,000 yds taken off base to a spoil site. No drilling or blasting was done on site.

Using a CAT D-8H dozer and a KOMATSU 155 dozer, the excavation was substantially completed by mid-December. This was well within the contractor's initial estimated completion date of February 1978, as shown on his CPM analysis. There was a considerable amount of rain from October 1977 to December, but the AROICC considered the tank site excavation was proceeding well and on schedule.

On the rest of the job, however, there were problems galore. What the plans showed to be a sanitary sewer manhole turned out to be a fuel blowout pit. One of the government-furnished existing pumps to be used for an essential temporary bypass pumping station became nonfunctional and had to be replaced. And the valve pit where the temporary lines were to be installed bore little resemblance to the drawings.

The AROICC was surprised when in mid-February 1978 a letter from the contractor informed him that the contractor was submitting a claim for the excavation of an additional 34,124 yds of hard material encountered on the tanksite. "What is hard material?" he questioned. There is a bid item in this contract for 5,000 cu yds of rock at $15 per cu yd. "Is rock hard material?" At $15 per cu yd, 34,000 cu yds would cost $510,000. No one saw big rocks come out of that tank site.

The thought process started. The best place to find an answer is usually in the contract plans and specifications. Section 02201 defined hard material as "...solid ledge rock, firmly cemented unstratified masses or conglomerate deposits possessing the characteristics of solid rock not ordinarily removed without systematic drilling and blasting, and any boulder, masonry or concrete except pavement exceeding one-half cubic yard in volume."

At this point it was a simple question. There was no evidence of hard material. The method and time of removal had indicated the material was not hard. The boring logs were the best available engineering evidence and they also indicated the material was not hard. Neither side had conclusive evidence as to the actual material removed. No pictures were taken during excavation. No engineering tests had been taken.

Then, more facts surfaced.

A meeting had been held at the job site on November 14, 1977 between the former AROICC and contractor representative. The recollections of the meeting varied somewhat. Although an official claim had not yet

been received, a claim was imminent.

The material remaining in the fuel berm was clearly visible, and the spoil sites were viewed, but none of this was conclusive, for the material dumped from this job was indistinguishable from material dumped from other jobs.

Also sought was the advice of other local contractors and experienced construction inspectors. Based on all this, it was the AROICC's firm opinion that there was no hard material removed from the site, except for the 32 cubic yards which was well documented.

A primary requirement at this point is to consult with the appropriate EFD representative for it's too easy for the AROICC's emotional involvement in the field to cloud his judgment. He must make sure his EFD construction manager has all the facts, not just the ones that support his own position. Also when a formal claim is submitted, the EFD must not be taken by surprise.

The first inquisition the young ROICC/AROICC is liable to encounter when sending a claim is by a contract claims review board at the EFD. It may involve a personal appearance before the board, a conference telephone call or just a review of the ROICC's and the contractor's written opinions of the claim.

At NAVFAC the contractor may or may not be offered a Chief's Board (Contract Award and Review Board). This is an administrative body empowered to make what is termed the final decision of the contracting officer. Its members are significantly senior to, and more experienced than, those of the Claims Review Board.

An appeal is prepared.

At the Chief's Board, each side is invited to present its case, verbally and again in writing. The AROICC may again be surprised because any weaknesses or mistakes on the part of the ROICC or his staff, even though not directly related to the case, become highly visible when viewed under the microscope of the Chief's Board.

In due course, and after consideration of all the facts available to them, the Chief's Board rendered a decision. It denied the contractor's claim in it's entirety and the thrill of having one's judgment confirmed is felt.

Another step remains — a bigger one. The contractor has an option of appealing to the Armed Services Board of Contract Appeals (ASBCA) or to a federal court, but generally if a contracting officer's decision is appealed, the forum selected is the ASBCA.

And so it is that the AROICC gets a call, a year or two after what he thought was the final decision. It may be from a young attorney in the Office of General Counsel seeking assistance in answering some questions. First comes discovery (a legal term which loosely translated means finding out exactly what the other side knows), then rediscovery, and so on almost *ad infinitum*. All of this researching and tying down dates and events takes an incredible amount of time. By this time, the AROICC has been transferred and the records are not readily available. The matter is now three years old and memories are fading.

The importance of keeping accurate records and files at the ROICC office cannot be overemphasized. It's best to assume that no one else will do it, and the ROICC office will be expected to have the documentation even if already forwarded up the line once before.

The next step might be the taking of depositions, which is part of the discovery process. The opposing side has the opportunity to question all potential government witnesses under oath prior to the hearing. This gives them an opportunity to ask questions as well as evaluate the veracity and ability of the government witnesses to react under the stress of leading questions and personal attack.

The next big step for the ROICC/AROICC, other than more time consuming consultations with the government attorney, is the ASBCA hearing itself. Again the whole cast of characters troops up to the ASBCA hearing, which is usually held in the Hoffman II Building in Alexandria, Virginia, where NAVFAC also has its headquarters.

This time the cast of players is augmented by one or two attorneys on both sides and numerous additional witnesses. And the hearing becomes more formal. Testimony is sworn, verbatim transcripts are taken and federal rules of evidence are observed, all of which adds to the sense of strangeness and foreboding by the unintitiated.

"Federal rules are observed.

When it's over, knowing the cost to the government and ROICC personnel resources, is it worth it? Yes, it is. Our legal system is set up to protect both parties. To insure preservation of the government's rights and insure the continued quality of NAVFAC construction contracts, contract administrators must be prepared to commit resources to fully accomplish the job. Giving in or making a purely economic decision is not in the best interest of the taxpayer.

Our judgment must not be clouded by emotional considerations. Before automatically making a decision to fight a claim, the matter must be considered objectively, and the advice of the more experienced contract and construction managers at the EFD level must be obtained.

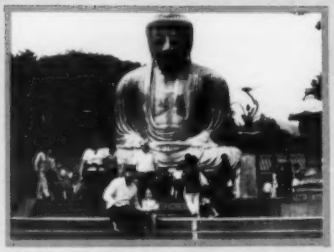
In reality, with the standard two-year transfer common to military officers there is often only a year or two of actual experience in administering contracts. If after receiving such counsel, we decide to forward a claim, we must be prepared to commit sufficient resources to win. And just as important, we must be fully prepared at every step along the way, no matter how long and arduous the course may be.

Brazil

Africa

China

Leni



Japan

Egypt

Not all CEC jobs are located in Podunk Hollow

(Podunk "Holler" to the natives)

By CDR STEVE C. BEUBY, CEC, USN
P.E., Calif.
Director, Requirements Planning
NAVFAC HQ

Seabee/CEC involvement with the State Department dates back to 1964 when a clandestine wired microphone system was discovered hidden in the structure of the U.S. Embassy in Moscow. Responding to an urgent request from the State Department, a Seabee detachment of an officer and 49 enlisted personnel was assembled to survey all construction and renovation work in State Department buildings in six iron-curtain countries.

The early success of this effort led to expansion to other parts of the world, and eventually to the establishment of a formal Naval Support Unit State Department (NAVSUPPUN State Dept.) in 1966. While initially involved in surveillance of construction operations, the NAVSUPPUN State Dept. has evolved into actual construction performance, installation of electronic equipment, lockwork modifications, x-ray operations and vehicle armoring.

Today's NAVSUPPUN State Dept. numbers approximately 90 carefully selected Seabees, with Lieutenant Commander Tom Wisehart, CEC, USN as the Officer In Charge.

LCDR Wisehart lives with his wife, Marla, and son, Tommy, in the Washington, D.C. suburb of Alexandria, Virginia. As OIC, Wisehart's office is in the main State Department building located near the Lincoln Memorial in downtown Washington, D.C. "Normally the commute doesn't bother me," he states, "because I spend most of my time out of the country visiting our field personnel."

As a matter of policy, Wisehart spends at least 40 percent of the year traveling, and will visit nearly one-fourth of the U.S. Embassies in the world during his tour of duty. A routine trip for him might include a visit to each U.S. Embassy in a particular continent or series of continents, and often includes circumnavigating the globe. A typical visit to a U.S. Embassy will normally include an inspection of the NAVSUPPUN State Dept. personnel at that Embassy, a review of quality and backlog of work, and an overall assessment of the program for that specific location. Following the business of each visit, Wisehart calls upon the U.S. Ambassador and personally provides his assessment to the Ambassador. Depending upon

LCDR Tom Wisehart views the Great Wall of China from the back of a camel during one of his assignments with the Naval Support Unit State Department.

ADVICE OF COUNSEL

By WILLIAM H. SPECK
NAVFAC HQ

The Law is often stated in a foreign language, not decipherable even by linguists. Its terms may be those of a foreign language, for example, *habeas corpus, amicus curiae,* or *certiorari.* If knowledge of Latin suffices to translate, "you have the body," "friend of the court" or "to certify," this literal translation does not convey the legal meaning.

Habeas corpus prescribed in the U.S. Constitution is the writ by which a judge orders a custodian to bring a prisoner before him to determine the legality of the confinement. *Amicus curiae* is the means by which one interested in a case before a court but not a party, and perhaps without right to intervene, may state his views as to the law and the judgment. *Certiorari* is the writ by which the Supreme Court recently called upon a Court of Appeals, which had rendered a decision adverse to the Command, to certify up the record for its review and (it is hoped) reversal.

Some legal words merely pick a foreign term and build a body of law, such as "tort," French for "wrong," which covers personal injury law, libel and slander, etc. Some legal terms are merely "mumbo jumbo" as when the Navy, two Commanders of the Naval Facilities Engineering Command, a dozen others and "John Does I-XII" were sued on an employment issue: the John Does were simply unkown persons sued as "John Doe" in the probably mistaken belief that unknown possible defendants should be so named.

The law often states its rules in sonorous and enigmatic Latin. *Sic utere tuo ut alienum non laedas:* So use your property that you do not damage another, perhaps pertinent to AICUZ. *Noscitur a sociis:* interpret words according to accompanying words. *Contra proferentem:* interpret words against the person uttering them, interpreting standard form government contracts against their author.

Some old cases recite their facts and ruling in a delightful, partly intelligible mixture of Latin and Norman French, translated: "one enters my place ... and I request him to desist ... and ... to prevent him from doing more damage ... throw some stones at him molliter and molli man ... still this is not a good justification, for the judges say that one cannot throw stones molliter, although it were confessed by demurrer...."

But we continue to express law in alien language today, when every new statute makes its own terminlogy that must be precisely understood and followed.

The making of law in special alien language term continues every day. We make words like "NAVFAC," or use acronyms like NEPA, DAR or ASPR, HASC (House Armed Services Committee), HAC (House Appropriations Committee), SASC (Senate Armed Services Committee) and SAC (Senate Appropriations Committee). We speak of "Rule 4 documentation" for ASBCA appeals, we "reclama" adverse budget decisions, and we make "section 612 notification to Congress," all legal nicknames intelligible to the initiate.

We are making up words like the Germans, who might entitle NAVFAC the "NAVYSHOREBUILDINGPROCUREMENTOFFICE." □

Exotic places

Continued from page 25

the local situation, he might find himself in and out of the Ambassador's office in a matter of minutes, or he may well be a personal guest of the Ambassador for cocktails and dinner.

When time permits, local tours and sightseeing are a welcome pastime. As Wisehart puts it, "Aside from providing a respite from the hectic schedule of meetings and social functions, sightseeing tours provide an opportunity for a CEC officer to expand his understanding of other cultures and to experience first hand many of the great engineering feats of all times.

In the past year, I have walked inside the Egyptian Pyramids, strolled along the Great Wall of China, viewed the majestic Taj Mahal, walked amongst the great Temples in Bangkok, viewed ships transiting the Panama Canal, and toured the grounds behind the Kremlin Wall. In all, I have visited approximately 30 countries in the past year."

While in Washington, Wisehart finds it an important aspect of his job to keep close liaison with the various office divisions of the State Department — Communications, Foreign Buildings, Bureau of Adminstration — and other government agencies. Also, being assigned to the Office of Security in the State Department has given him the opportunity to attend a number of briefings on various worldwide events; such as the kidnapping of General Dozier, the assassinations in Paris, the Iranian hostage crisis, and a major earthquake which leveled the city of El-Asnam, Algeria. (NAVSUPPUN State Dept. provided a Seabee Team to assist the Algerian government in erection and maintenance of American furnished tents.)

"Working in the State Department has had other spin-off benefits," declares Wisehart. "Almost a daily occurrence at the State Department is a visit by high level government officials and foreign dignitaries. A few of the speeches I have witnessed have included both Presidents Reagan and Carter, Vice President Bush, Secretaries of State Haig, Muskie and Kissinger and numerous foreign ambassadors and heads of state. I was invited to the State arrival at the White House to welcome the new Egyptian President Mubarek."

When asked to summarize his job with NAVSUPPUN State Dept., Wisehart pondered a moment or two with a faraway look in his eyes, "This is absolutely a fantastic billet. I think I've seen and learned more in one tour than a person might hope for from a lifetime. I'm not looking forward to the day when some lucky CEC officer comes to relieve me. But, on the other hand, who knows what challenges and fun my next tour might bring..." □

EARTHQUAKE

The Navy is looking for ways to minimize quake destruction and life risk

By DOMENIC A. ZIGANT
Head, Structural Section
West Div. NAVFAC

• San Bruno, Calif.

Anyone who lives in the Western United States knows that earthquakes are the most unpredictable and frightening of natural disasters. They strike without warning, last only seconds, and, in those brief moments, can cause destruction, damage, death and injury comparable only to the havoc and devastation brought by modern warfare. Thirty-thousand people died in 1755 when a great earthquake hit Lisbon, Portugal. The great earthquake and fire of San Francisco in 1906 is probably familiar to most people, as Hollywood has documented that event in its own inimitable way.

As unpredictable and destructive as earthquakes are, their physical effects are highly predictable. Knowledgeable pre-earthquake planning and preparation can, in most situations, considerably mitigate their destructiveness. To this end, Congress enacted the Earthquake Hazards Reduction Act of 1977. "It is the purpose of the Congress in this Act to reduce the risks of life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards reduction program." The Act establishes objectives to:

- Develop earthquake-resistant design methods and procedures
- Predict earthquakes and characterize seismic hazards
- Develop model codes in cooperation with State and local officials and practicing professionals
- Plan and prepare for, respond to, and recover from earthquake occurrences

These are indeed broad and far reaching objectives. And, in the discussion of how the objectives of the Act may be achieved, it is suggested that the Federal Government should begin by instituting more effective measures in its own facilities and by coordinating its own programs to reduce hazards, thereby setting an example and developing a set of standards for others to emulate. If the Federal Government does not practice what it preaches to States and localities, the program's chances of success will be greatly diminished.

In order to comply with the Earthquake Hazards Reduction Act, NAVFAC, in early 1979, began the planning to implement the Navy's Earthquake Safety Investigation program, for zones 3 and 4. NAVFAC and WESTDIV established criteria for investigations, priorities, methodology and budget recommendations. It is anticipated that by the end of FY85, the entire inventory of Navy Shore facilities will have been investigated.

The Navy's approach is to conduct the investigation in two phases. Phase I uses a rapid evaluation technique developed by URS/Blume Engineers and modified by the Civil Engineering Laboratory, at Port Hueneme, Calif. This technique assures that the entire facility inventory is investigated, in the initial phase, to the same baseline. Also, it identifies structures that require more extensive investigation. In Phase II, structures that were identified as potentially hazardous in Phase I are studied in depth. The criteria used for analysis will depend on whether a building is to be considered life-hazard or mission-essential. Corrective measures and their associated costs will be the outcome of the Phase II study.

Aside from identifying those facilities that require attention, it is anticipated that the recommendations contained in the Phase II studies may be accomplished in several ways, depending on circumstances. One way would be to submit a project specifically addressing the structural upgrading of a building or structure to minimize the potentially devastating consequences to the mission of the facility in the event of a major earthquake.

The other approach is to include the structural upgrading as part of a rehabilitation project for a facility when the function or occupancy would be altered. The structural corrective measures will already have been worked out, in principle, and a cost estimate will be available for programming. This will certainly minimize the problem of obtaining additional funds well into the project when it is found that the structure is inadequate. □

KNOW YOUR PEOPLE

First leadership rule for effective RNCF command

By CAPT GERRY E. HIGGS, CEC, USNR-R
P.E., Va., Md., D.C., Pa.
• Norfolk, Va.

The mission of the Naval Construction Force (NCF) is construction and/or base recovery in a hostile environment. Since WWII the NCF has been comprised of both active duty and reserve units. Of 21 battalions that served in Viet Nam, just two reserve battalions were called to active duty from among 18 available. Several developments since Viet Nam suggest that more reserve units of the NCF will be involved in future contingencies.

First, following the Viet Nam conflict, active duty personnel strength of U.S. armed forces was reduced. Active duty battalions were reduced to eight, with reserve battalions reduced to 17. Secondly, the policy of the Department of Defense changed to plan on the early call up of reserve forces in future conflicts.

In response to this increased reliance on reserve units, the successive commanders of the Reserve Naval Construction Force (RNCF) have promulagated an increasing array of performance requirements and mobilization standards for all units. Emphasis on personnel strength and military skills, logistic support and mobility have greatly improved the mobilization readiness of the RNCF. The general improvement has decreased the variability among units.

Given the high state of readiness of the RNCF, command leadership has become the most significant variable in the performance and mobilization readiness of reserve units. Experience has shown that command leadership is to a military organization as oil is to a machine; it is essential in keeping the parts of a military organization running smoothly to accomplish its mission.

Since we can no longer tolerate a reduction in readiness while a reserve commanding officer learns on the job by trial and error, those aspiring to command are encouraged to reveiw the lessons learned by others. These lessons will amplify the invaluable experience learned while a junior officer is serving in an NCF unit. To tap the accumulated leadership lessons of active duty commanding officers, read "Seabee Command" available through the Naval Facilities Engineering Command.

The special circumstances of reserve units call for the application of leadership in slightly different ways. Following are some lessons learned while in command of RNCF units to assist those rising now as future leaders of RNCF units.

SPECIAL CIRCUMSTANCES

Reserve Naval Construction Force Units share the need for leadership with all military organizations. Perhaps 90 to 95 percent of good leadership in reserve units is identical to good leadership in all military organizations. There are some factors, however, that make reserve units unique, requiring understanding by a unit commander for the most appropriate application of leadership. These unique factors include:

- Most members of reserve units, both officer and enlisted, are truly volunteers; that is, they can leave anytime without violating a contract and without threat of punitive measures.
- Geographical dispersal of personnel during all but two weeks of annual unit training.
- Members have intermittent contact by drilling one weekend a month and spending two weeks a year on Active Duty for Training (ACDUTRA).
- The opportunity to select those best qualified to serve from an excess of personnel available.

COMMAND LEADERSHIP

Setting Goals and Objectives

One of the first leadership responsibilities of a new unit commander is the objective and subjective evaluation of the condition of the command in comparison to its mission requirements. This includes an assessment of morale, of key officer and enlisted strengths, weaknesses and development needs. With this understanding, the new commander is in a position to set his own priorities for improvements within the command and for reassignments of personnel required to strengthen the organization.

Selection of Personnel

Any opportunity the reserve unit commander has for selection of officers and key enlisted for his unit should be used to attract and retain those who have the greatest potential for attaining and maintaining the mobilization readiness of the organization. More important is the assignment of key individuals in such a way as to allow their increasing capability and their continued interest from year to year.

Proper Delegating and Tasking

One of the most important management and leadership functions that is frequently failed is that of proper delegating and specific tasking. Some of us have suffered at

sometime under the inept direction of someone who could not delegate his responsibilities and therefore did not utilize our services. There is no longer a commander who alone can do the job expected of RNCF units.

Successful delegation involves written identification of the tasks to be accomplished.

Clear and thorough tasking is needed by all personnel; military, officers and enlisted. Certainly key personnel should have a written delineation of tasks, and if these include reaching assigned goals, an expected progress and reporting schedule should be included. Without proper tasking the best performance is never attained.

Motivation

The commander impacts on the implement, exercise and supervise parts of the cycle primarily by motivating people. There are many tools for motivating others and they all involve the written and oral skills. The commander should use both and his effectiveness will be governed by his sincerity and his skill in communication.

Given the limited opportunities the reserve battalion Commander has to be exposed to his personnel, written communication to those in the outlying areas most of the year is advisable. A monthly newsletter containing the "straight scoop," including motivating messages from the commanding officer have been found extremely useful, especially when mailed directly to an individual's home.

Talks to the officers, chief petty officers, and key personnel at times when they are gathered for planning or staff functioning provide opportunity for the commander to motivate verbally.

Recognition and Reward

The leadership opportunity in the evaluation part of the cycle is to recognize and reward. Recognition and reward are aspects of positive feedback that, used judiciously and appropriately, will help inspire continued efforts from those acknowledged and rewarded, as well as their peers.

Verbal praise, letters of commendation, recommendations for certificates of achievement by the next level of command, and recognition by the Chief of Naval Operations and the Secretary of the Navy should be obtained for successively worthy demonstrations of accomplishment.

Punishment: A Command Function

Punishment is a command function that is essential for the maintenance of order, discipline and esprit de corps. The ultimate definition of what the rules are requires punishment of offenders. Unpunished offenders cause a loss of credibility of command — the non offenders think "What you said was important is not — you don't mean what you say. The next time you say something, I won't be so sure it's important." When the rules are reinforced fairly, all are reassured and confidence in the command can continue at a high level.

OTHER LEADERSHIP LESSONS

The following opportunities for leadership are not directly related to the annual cycle, but each requires special application of leadership in the reserve unit.

Take Care of Your Men

A good leader inspires other men with confidence in him; a great leader inspires them with confidence in themselves. Because the RNCF unit commander is not daily exposed to his men there is a natural tendency to continue the close relationship developed with subordinate officers and key personnel on occasions when the entire unit is together. These infrequent occasions provide the commander with additional opportunity to become personally acquainted with his men and be available to them.

Stretching his activities to include informal visits with his men in the barracks, in the mess, on the recreation field and elsewhere will go a long way in establishing a rapport with assigned personnel that will cause them to want to do their utmost when the commander asks for it.

Fit Style of Leadership to the Situation

People can accomplish far more than they themselves perceive. A commander is in a position to drive elements of his command, or indeed his entire command, to efforts with which they are not accustomed and may thereby achieve a higher level of performance with resulting increased satisfaction and confidence of all hands.

If your unit is in combat and has just come under fire, it is no time for action by committee. The leader must issue the orders swiftly with firmness and direct the action of the unit. Conversely, in peace time, the planning for the Seabee ball celebration may result in a more enjoyable event if it involves a broad spectrum of the unit's members.

Peak Performance When It Counts Most

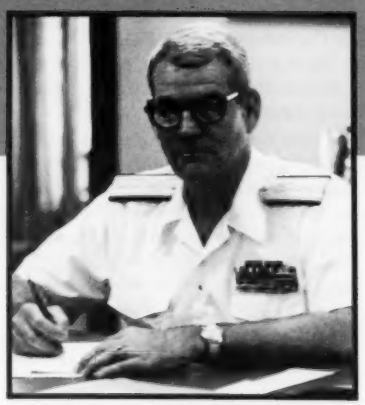
Developing a rapport with members of the command will make them more willing to do their utmost when asked by their commander. Consider the circumstances under which it is appropriate to ask for and expect the utmost in performance.

In the RNCF cycle, a unit's peak performance should be attained during the ACDUTRA period.

Command leadership is the most important variable in maintaining mobilization readiness. The rising leadership of the RNCF can enhance their future command leadership by their experience on the way up and by absorbing the written lessons learned by active and reserve Naval Construction Force commanders. □

Speaking
from Topside

"Public work is a service . . . In our case the strategies are very simple"



Quality of life — You hear the term quite often these days. It is the new "in" way of packaging all those long overdue initiatives aimed at improving morale, productivity and the retention of our competent military and civilian personnel. We in the Civil Engineer Corps and the NAVFAC organization know the term in a somewhat different context. For us, quality of life describes the very essence of our business.

The profession of civil engineering touches each individual in very personal ways every day. The quality of life that we enjoy, and often take for granted, is delivered predominately through one or another of the many highly specialized fields of civil engineering. From the construction, sanitary, environmental, and transportation disciplines of civil engineering come the homes where we live and the offices and plants where we work, the transportation systems that give us unprecedented mobility, the utility systems that provide the life blood of our existence, and the planning and direction that safeguard our natural resources. We have become so accustomed to delivery of this myriad of civil engineering related products and services that we are not conciously aware of their existence, except when they are interrupted or perceived to be delivered in less than an economic, efficient and effective manner.

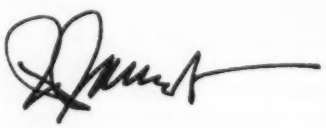
Looking at our business from this perspective, two things become very evident: first, how really important our engineering products and services are to the infrastructure of operating bases and support facilities; secondly, how so many of our efforts are personal in nature and directed at the "consumer" rather than the traditional (and impersonal) "customer." When *what you do and how you do it is both very important and very sensitive,* you had best perform well, and be *perceived* as a good performer, or stand by for some sharp criticism.

Today's public works environment is fraught with problems: a growing workload driven by the Navy Expansion Program; limited resources, people and dollars; and complicated and complicating programs to execute, e.g., the A-76 Commercial Activities Program. On top of this there is today a natural tendency to manage through a systemic process which results in "hard numbers" or performance indices. The culture of numbers is then relied upon as representing reality, when in fact the numbers are only as good as the data submitted for analysis by the lowest level manager in the organization. How disenchanting it is, then, for the manager to find that the numbers fall apart when exposed to the harsh light of consumer opinion.

Certainly, the systemic approach is an essential part of the management of our business, but only a part. We must not forget that public works is a service, and services are sold with market strategies. In our case the strategies are very simple.

- Provide quality work.
- Perform on time.
- Visit your "consumer." Find out just how your operation is perceived.
- Develop plans to correct misperceptions; with equal energy develop plans to correct mismangement.

Our Public Works Center and the Public Works Departments *exist solely to support the fleet and the shore establishment.* Public works is not a perfect operation; the Navy doesn't have the resources to make it so. But still there can be no tolerance for even one major defect which adversely affects operational capability, nor tolerance for systemic flaws which permit recurring minor defects. As Winston Churchill once remarked, "It is no use saying we are doing our best. You have got to succeed in doing what is necessary." Those in the public works business have never worked harder than they are right now in doing what is necessary to improve delivery of our services and the perception of that delivery. For them and for all of us, improving the quality of life through engineering is an everday commitment.



John P. Jones
Rear Admiral, CEC, USN
Vice Commander and
Deputy Chief of Civil Engineers

"Ironman" Corbett does it again!

All he wanted to do was finish the race and he ended up coming in 193rd out of 585 entries.

By WILLIAM P. CARTY
Public Affairs Officer
NORTHDIV NAVFAC

•Philadelphia, Pa.

When a change of pace is needed by busy Civil Engineer Corps officers, most turn to activities that are less demanding on mental and physical resources. Many go fishing, some collect things, and others just plain relax and let life go by. This is not true in the case of LCDR Jim Corbett, CEC, USN, Reserve Seabee Program officer at NAVFAC's Northern Division. He likes to step up the pace.

This year he entered the Iron Man Marathon in Hawaii, perhaps one of the most grueling events of its kind in the world. "Iron Man" is a fitting name for this marathon-to-end-all-marathons. Actually, its three parts should be enough to end all would-be competitors.

First part of the contest is a 2.4 mile rough-water swim. Contestants then dry off, dress and immediately begin a 112-mile bicycle race. After just enough time to change shoes, they're off on a 26.2-mile foot-race.

Corbett says he just wanted to finish this one. He says next year will be faster, but he's making no predictions.

How did he happen to enter the Iron Man? He says he was looking for something besides the usual marathon. He had run in the Marine Corps Marathon in Washington, the Boston Marathon, many races in California and several in Philadelphia, but he was looking for a change of pace.

Jim Corbett travels through the lava fields surrounding Kailua-Kona, Hawaii, during the 112-mile bike race portion of the recent Fifth Annual Original Ironman World Triathlon.

To prepare for the Iron Man, he went to the gym every lunch hour and swam a mile and a quarter. He ran eight miles each day after work and rode a bike for 30 miles.

When the weather was bad, he did his cycling on a fixed roller-bike in his living room for two hours. That was about the same as 30 miles.

All this was for the last three months before he went to Hawaii. In his words, "It takes nine months to get up to this schedule. You have to build up to it gradually. A person is like an elastic band. Stretch it too much and too quick and it'll snap."

When asked if he had to do anything beyond his normal physical training routine, Corbett answered, "Yes, I had two new sports to learn. I had to learn how to long-distance swim, and how to ride a 10-speed bike. I spent time at both sports everyday for about six months before the race."

Corbett went on to say, "Both the swimming and the biking were the most difficult for me because of my lack of experience. Swimming in open water is tough. All your training is done in the pool and then, suddenly, they throw you in the ocean." And then wiping his brow as if remembering, Corbett added, "During the bike race it became very hot. The temperature reached 100 degrees in the laval fields where the bike course was set. I had the 20th fastest time out of the entire field. And I passed a lot of folks in the marathon because I really knew how to run."

A native of Boston, Corbett received his B.S. degree in civil engineering in 1970 from Merrimac College in Massachusetts and a master's degree in management from the Naval Postgraduate School at Monterey, Calif., in 1979.

He served for three years as a company commander with NMCB-4 at Port Hueneme, with deployments to Puerto Rico and Diego Garcia; for two years as officer in charge of a CBU at Charleston, S.C., engaged in a self-help program; and for two years as assistant public works officer at Mayport, Fla.

For the two-and-a-half years he has been in Philadelphia as Reserve Seabee Program officer, he and his wife, Janet, have been making their home in Woodbury, N.J.

The tour is just about over, and where would he like to be assigned?

Where else? To Hawaii, of course, so he won't have to pedal that imitation bike in his living room before next year's Iron Man.

How did Corbett do this year compared to the other entries? Not bad!

This year, 585 started the Iron Man and 542 finished. Jim Corbett was 193rd with a time of 12 hours and 50 minutes. The winning time was 9 hours and 20 minutes. □

LETTERS. . .

Dear Editor:

One of the reasons I joined the Navy Civil Engineer Corps was to "see the world," and to partake in some of the more exotic jobs and challenges available to CEC family members in remote locations around the world. While there are many wonderful challenges and rewards available through the standard Seabee, Public Works and Officer in Charge of Construction billets which we receive through the normal rotation cycle in our careers, it is the non-normal job which still fires my imagination and provides a degree of "romance" to my very enjoyable career. In most cases, this romance is really through association: by knowing someone who is actually in that non-normal billet or by hearing first or second-hand the tales of challenges which combine to give a billet that magic classification of "exotic."

In my discussions with other CEC family members, I have found this search for and relationship to "romance" to be a common factor. Since this is the case, it would seem highly appropriate that we establish a routine method for disseminating the word about these billets. We already have the ideal medium for this in the form of the *Navy Civil Engineer,* our "family" magazine.

Accordingly, I propose that we launch a continuing series of articles which describe the spectrum of challenges of specific billets. This spectrum might include such factors as the living conditions, technical challenges, interpersonal relationships (political or colorful personalities), travel requirements, key decisions, or challenges in general.

Over the years of my career I've seen some remarkably unique jobs being performed in independent billets. A few past ones which come to mind are those independent ROICC billets in upcountry Thailand in the 1960s, those CEC billets located in Cambodia and Laos until the early '70s, and those "ambassadorial" South American advisory billets of the 1960s and '70s.

One needs only to scan the NAVFAC P-1 to see obvious present-day billets of this category: NATO billets in Oslo and Lisbon; ROICCs in Southern Sicily and Mombasa, Kenya; PWOs in Egypt, Greece, Australia, New Zealand, and Pt. Barrow, Alaska. There are numerous more, many of which are too well hidden. As an example, I am forwarding the accompanying article on a billet located right here in Washington, D.C. I hope it will serve as a catalyst to produce many more. Let's hear from you!

CDR S.C. Beuby, CEC, USN
Director, Requirements Planning
NAVFAC HQ

■ *Thank you for sharing your thoughts, CDR Beuby — I couldn't agree with you more! Although the magazine is primarily for articles of a technical nature, it's good to show the human side of engineering. After all, engineers are people too! There must be at least a million stories out there that are unusual and interesting and we'd like to see some of them arriving in our mail. This page contains information on how and where authors may submit their material.*

By the way, we happily published your article on pages 24-26.

Dear Editor:

I am Marcel Bernier, a WG-9 crane operator in PWC, 32nd Street, San Diego. An article in the *Navy Civil Engineer* (Fall/Winter 1981) titled "Land-Base crane survives first 'shakedown'" was interesting? How could I get some more information on this 300-ton crane? I am also a reserve Seabee in RNMCB-17, Det. 0117.

Thank you very much,

Marcel Bernier
Chula Vista, Calif.

■ *The man mentioned in the fourth paragraph can help you. He's J. J. Traffalis, NCEL's Test Director for the project. Contact him at NCEL, Port Hueneme, CA 93043.*

Dear Editor:

Congratulations on your first issue as editor of *The Navy Civil Engineer Magazine.* The format is easy to read and very nicely organized. Special praise should be given to your eye-catching and photogenic cover. It is a welcome change.

One particular article I found very informative was Dr. Vincent A. Transano's "Commodore Grade Has Shaky History in CEC." I feel this article is very interesting, and it is good that your magazine brought it out.

I look forward to the issues that follow.

Sincerely,
Arthur H. Wu, D. Sc. P.E.
Geotechnical Engineering Specialist

■ *Thank you, Dr. Wu, for your generous and warm remarks. I can assure you they will* ***never*** *be forgotten by this editor!*

May I add that your taste is irrefutable. Dr. Transano was awarded for the article mentioned.

What's your story?

Contributions, comments and criticisms from readers are welcomed. Original manuscripts are particularly invited. Opinions or suppositions expressed by authors are solely their own and do not necessarily reflect command or official concurrence. An inquiry should be directed to the Editor prior to submission of material to prevent duplication and to aid in publication planning. The Editor reserves the right to condense accepted material or to complete alterations without author consultation. Material appearing in The *Navy Civil Engineer* may be reproduced. It is recommended that prior to reproduction an inquiry be made to the Editor for additional data that may have become available.

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Manuscripts for editorial consideraion and inquiries should be directed to the Editor at the publication offices, address listed below:

Editor, Navy Civil Engineer Magazine
CECOS, Code C20M
Port Hueneme, Calif. 93043

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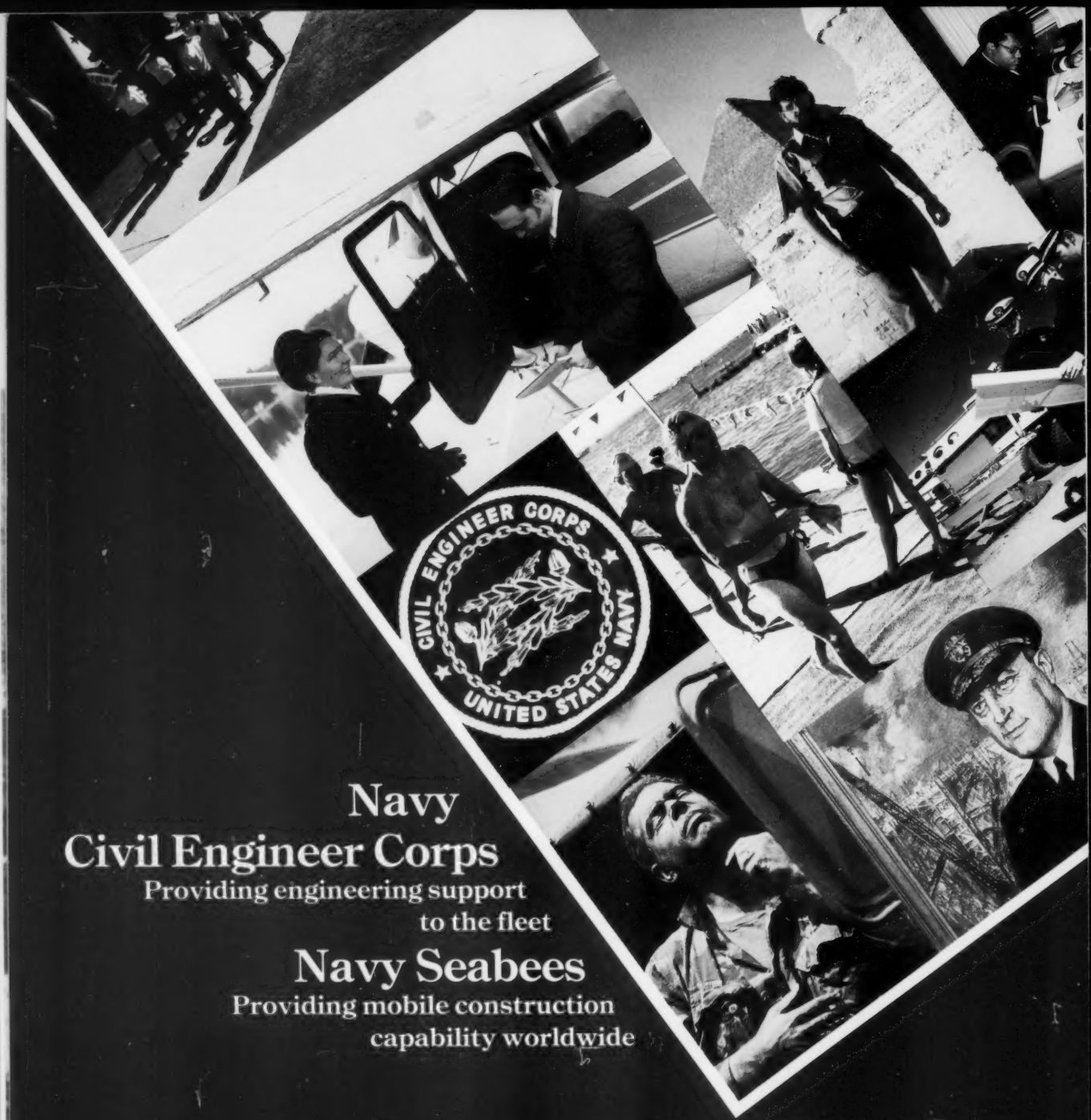

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